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History of the TNMC & BYL Nair Ch. Hospital

Click OR Copy and paste the link below in browser to see the video

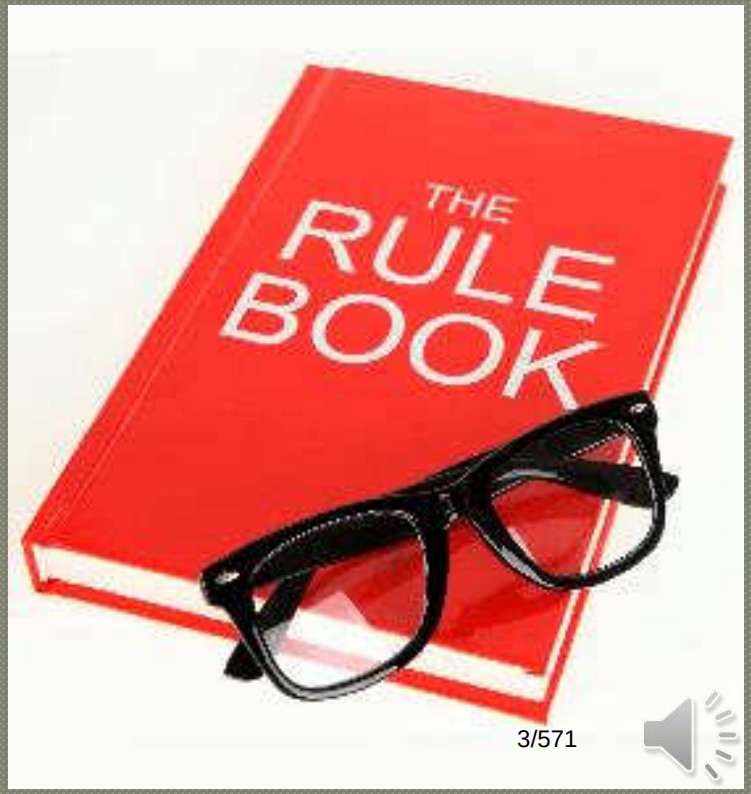
https://www.youtube.com/watch?v=zzQjSzyBs6U

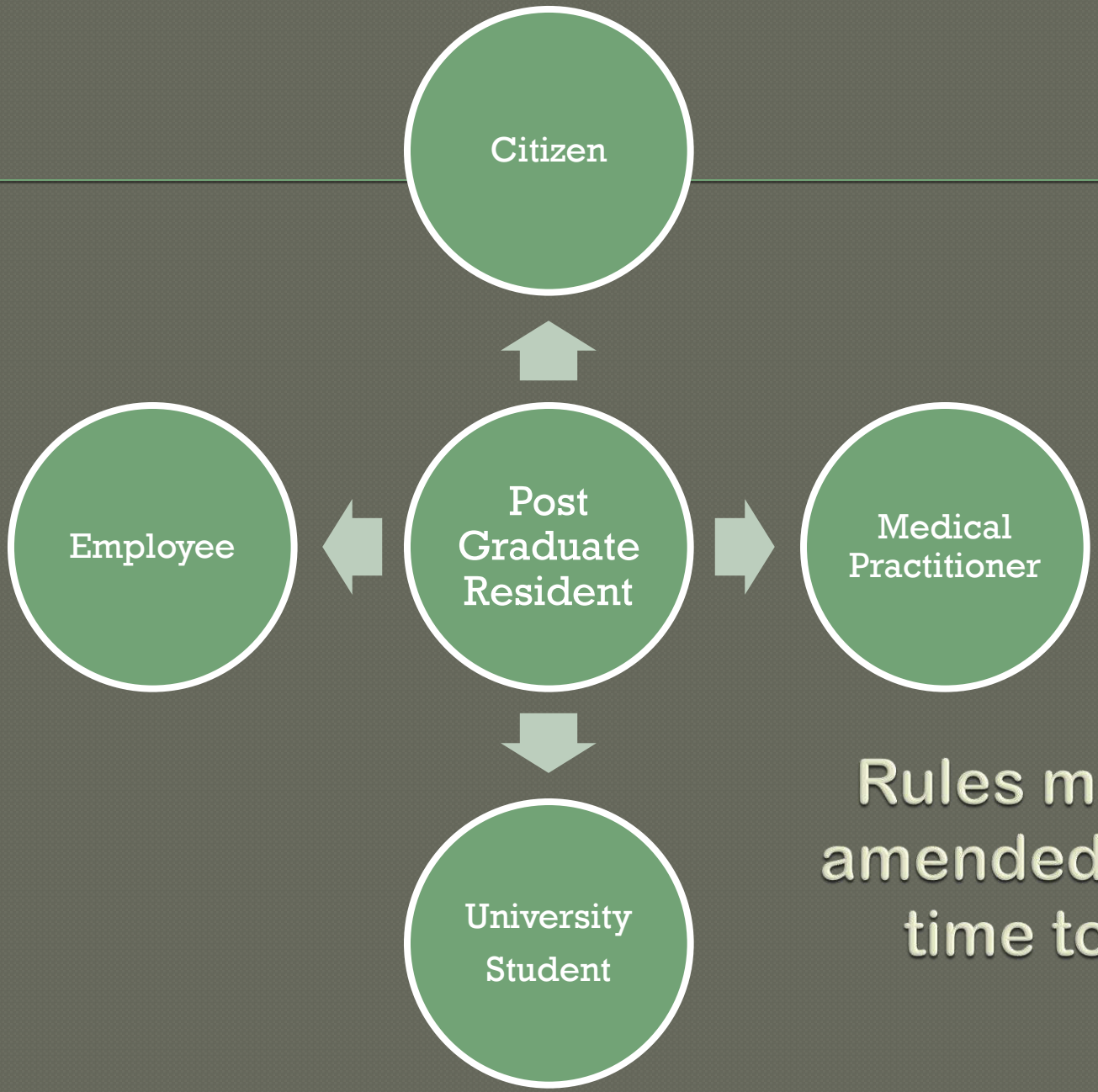
History of Nair Hospital

Dr. Sanjay Swami
Associate Professor
Department of Biochemistry

POST-GRADUATE RESIDENCY RULES & REGULATIONS

Dr Satish Dharap,
Addl Dean (Academics)
Prof & Head, Surgery,
TNMC & BYLNCH





Rules may be amended from time to time

National and State Laws

- Criminal Law
- Civil law
- Human rights
- Consumer protection act
- UGC act – Anti Ragging Act
- Special Acts

Special Acts Related to Medical Professionals

- Epidemic act 1897
- Drugs and Cosmetics Act, 1940
- Pharmacy Act, 1948
- Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954
- Medical Termination of Pregnancy Act, 1971
- Narcotic Drugs and Psychotropic Substances Act, 1985
- Environmental Protection Act, 1986
- Mental Health Act, 1987
- Transplantation of Human Organs Act, 1994
- PCPNDT (Pre-conception & Pre-natal Diagnostic Techniques) Act 1994
- Persons with Disabilities (Equal Opportunities and Full Participation) Act, 1995
- Bio-Medical Waste (Management and Handling) Rules, 1998

Medical Council Regulations

- Registration with the national or respective state medical council mandatory
- Registration of Additional Qualification
- Provisional Registration for Internship
- Temporary registration in case of foreign faculty
- Entrance test for those with undergraduate qualification from foreign universities

Medical Council Registration

- After acquiring MBBS or Equivalent degree
- Permanent registration with the Medical Council of India, or any of the State Medical Council(s) or shall obtain the same within a period of one month from the date of his/her admission, failing which his/her admission shall stand cancelled
- REGISTRATION WITH MAHARASHTRA MEDICAL COUNCIL IS MANDATORY

Duties of a Doctor

- Duty to help cure
- Duty to promote and protect the patient's health
- Duty to inform
- Duty to maintain professional secrecy
- Duty to protect patient's life
- Duty to respect the patient's autonomy
- Duty to protect privacy
- Duty to respect the patient's dignity

Rights of patients

- Right to high quality medical services
- Right to choose
- Right to be informed
- Right of privacy
- Right to health education
- Right to dignity

Please read

The Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002

University Regulations

- Fees
- Stipend
- Attendance
- Course Details

Fees

- As determined by the competent authority
- Nonrefundable

- If you leave the course midway

- Payment of fees for full course
- Refund of stipend paid till date
- Penalty of ₹ 20 Lakhs

Stipend

- Stipend as directed by the competent authority (the state government)
- Every resident has a unique vendor code
- Directly credited to the bank account
- Taxable as per IT act
- Budgetary approval for a total of 36 months
- To be refunded if the course is left midway

Course

- Post graduate student works as a FULL TIME RESIDENT
- Broad Specialty Degree : 3 years

  Diploma : 2 years
- Super-Specialty Degree : 3 years
- Course is divided into terms of 6 months each counted from the date of joining the course
- Minimum 80% attendance is required in each term- Otherwise the term lapses (Term drop)
- Not more than two terms can be dropped – Special permission for special cases
- Attendance is recorded by signing the muster

Rotation

- Post graduates in broad specialties may be rotated to allied specialties and /or peripheral hospitals in second/ third/ fourth term as decided by academic committee or competent authority
- Dean may assign any resident doctor to any patient sector in case of exigencies.

Components of postgraduate curriculum

- Curriculum is competency based

- Theoretical knowledge
- Practical and clinical skills
- Thesis skills
- Attitudes including communication skills.
- Training in Research Methodology, Medical Ethics & Medicolegal Aspects

Basic Course in Biomedical Research

- Mandatory
- Online only
- www.swayam.gov.in
- Register for BCBMR
- Complete the downloadable lectures and solve MCQs
- Register for examination
- Receive online certificate

Teaching programme

- Learning in postgraduate programme is essentially autonomous and self directed
- Graded clinical responsibility
- Seminars, Journal clubs, Group Discussions, Clinical Meetings, Grand rounds etc.
- Skill development in Structured courses / simulations and skill labs

Record (Log) Book

- Maintain a record (log) book of the
  1) work carried out
  2) training programmes attended
  3) details of surgical operations assisted or done independently

- Checked and assessed periodically by the faculty members imparting the training.

Thesis/Dissertation

- Decide topic under the guidance of your teacher
- Write protocol
- Departmental approval
- Institutional Ethics Committee approval (ECARP)
- Timely submission of the topic, protocol to the University
- Data Collection & analysis
- Thesis writing
- Approval of the guide
- Submission to the University
- Usually 6 months before the examination

Publications & Presentations

- One poster presentation and one paper presentation at national/state conference
- One research paper which should be published/accepted for publication/sent for publication
  during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination

POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000

Role of a PG student

- Teaching undergraduates & paramedical staff
- Training in Medical Audit, Management, Health Economics, Health Information System, basics of statistics, exposure to human behaviour studies, knowledge of pharmaco – economics and introduction to non- linear mathematics shall be imparted to the Post Graduate students

Assessment

- Formative
- Summative

Employment Regulations

- On duty etiquettes
- Duty hours
- Discipline
- Leave

On duty etiquettes

- Attire
- Apron
- PPE – Mask, Cap, Plastic Apron
- Hand wash before and after examining the patient
- Gloves
- Handle syringes/ needles/ tubes and catheters carefully
- Disposal as per BMW guidelines
- Mobile and pen are the most contaminated

Duty Hours

- 24 X 7 on call
- Except in Critical Care Areas – Limited hours duty
- Emergency day round-the-clock on call
- Manage time well to ensure time for rest, study and personal life

- Disadvantage
- Advantage

Discipline at work

- Traditions of noble profession
- Sanctions of medical ethics
- Sense of commitment and dedication
- Obligatory to be physically present in the hospital premises
- Punctuality

Discipline at work

- Obedience to commands
- Fulfillment of assignments
- Human approach towards patients
- Respecting fellow staff and teachers
- Absentee without permission may get resident expelled

Leave Rules

- As per the MCGM service rules
- Have to be aligned with University attendance rules.

Leave

- Casual leave
- Earned Leave (Full paid)
- Half paid Leave
- Unpaid leave
  - No leave on the first and last day of the tenure
  - No leave is permitted in the first three months of residency.

Casual Leave

- Casual leaves 15 per year i.e. 7 or 8 per term
- It is not a right
- Colleague must look after your work
- Approval of unit head and department head necessary
- C.L. cannot be carried forward beyond that year

Other Leaves

- 1 day full paid leave credited for every 22 days
- Usually 17 per year
- 20 days of half paid leave per year after completion of 1 year
- Both can be carried forward if there is no break or term drop
- At the end of 33 months you will have 45 days full paid and 40 days half paid leave which can be used as preparatory leave
- No encashment of the leaves is permissible

Special Leave

- Special TB LEAVE : Up to 2 months of paid leave is granted if infected during duty period
- Maternity leave : 26 week for degree course and 20 weeks for diploma courses
- NOTE: University term attendance rules apply.

Duties of a Resident Doctor

- Patient care
- National programmes for control of communicable and non-communicable diseases
- Administrative duties related to patient care
- Teach undergraduate students and public
- Research: Dissertation, Case studies
- Learn

Common pitfalls

- Emergency care
- Focus on specialty than patient
- Delay in investigation and treatment
- Failure to communicate
- Deficiencies in documentation

Some tips

- Start early
- Plan your work
- Keep diary of work to be done
- Decide priorities
- Inform you seniors at all stages
- Eat nutritious meals, maintain hygiene and spare some time for rest

Beyond Rules

- Treat others how you would like to be treated
- Do not let your pride and prejudice come in the way of patient care
- From some you learn what to do….
  From others you learn what not to do!
  But keep learning and enjoy the journey.
- Learn to decide priorities and manage your time well

Beyond Rules

- Take care of yourself
  Eat when you can and sleep when you can particularly on your call days
- Share your stress with your colleagues, seniors and faculty
- Remain in touch with your friends and family

Summary

- Remember you are a doctor and patients' well-being is your priority
- Remember you are here as a student and you may need to spare time to keep important university dates
- Remember you are MCGM employee and follow service rules
- Consider your department as a family and share your problems with your colleagues and faculty
- Inform your faculty / unit head if you cannot attend

Thank you

Pathology Laboratory Services

Dr Kusum Jashnani
Professor & HOD
Pathology
BYL Nair Ch. Hospital & T N M C

Pathology

Scientific study (logos) of Disease (pathos)

- Etiology : Cause
- Pathogenesis : Mechanism of its development
- Morphologic Changes :Structural alterations induced in the cells & organs
- Clinical Significance : Functional consequences of morphologic changes

PATHOLOGY DEPT. LABORATORIES

(1) Hematology Lab

OPD Building, IVth floor, Central Clinical Lab

(2) Emergency Lab

OPD Building, IVth floor, Central Clinical Lab

(3) OPD 16

OPD Building, Ist floor, Opposite Psychiatry OPD

(4) Cytology Lab

OPD Building, Ist floor, Next to OPD 16

PATHOLOGY DEPT. LABORATORIES

(5) Blood Centre

OPD Building, IInd floor

(6) Surgical Pathology Lab

College Building, IIIrd floor

(7) Postmortem Histopathology Lab

College floor, IIIrd floor

1) HEMATOLOGY LABORATORY

- Blood samples from ward (indoor) patients accepted till 10.30 am on working days. Reports sent to wards on same day by 6.00pm

Investigations Done

- Complete Blood Count- CBC
- ESR- Erythrocyte sedimentation rate
- Reticulocyte count
- G6PD Qualitative test
- Prothrombin time & INR
- Urine- routine microscopy
- Sickling test
- CSF, Pleural, Ascitic, Pericardial fluids for routine microscopy

2) EMERGENCY PATHOLOGY LAB

- Timings for sample acceptance- 3.00 pm to next day 7.00 am on working days
- 24 hours on Sundays and OPD Holidays

Investigations Done

- CBC
- Body fluids
- Peripheral blood smear for MP

- Reports to be collected from E Lab

3) OPD 16

- Appointments for blood collection given at OPD 16 window.
- Patient should report at 8.15 am on the day of appointment, bring along a requisition form or HMIS generated printout
- Fasting blood sample collection time: 8.15 am to 10.00 am
- Post-prandial blood collection at 1.15 pm
- Report Dispatch: Hematology on next working day, 8.30 am

Investigations Done in CPD 16

- CBC
- Urine & Stool Routine microscopy
- BT/CT
- ESR

Vacutainers:

EDTA (Purple): CBC, DCT, G6PD, RMAT

Fluoride (Gray): for Sugar

Plain (Red): HBsAg, AntiHCV, VDRL, ICT, Bld Grp, Lepto Dengue

Heparin (Green): RFT, LFT, Lipid profile, Electrolytes, Calcium

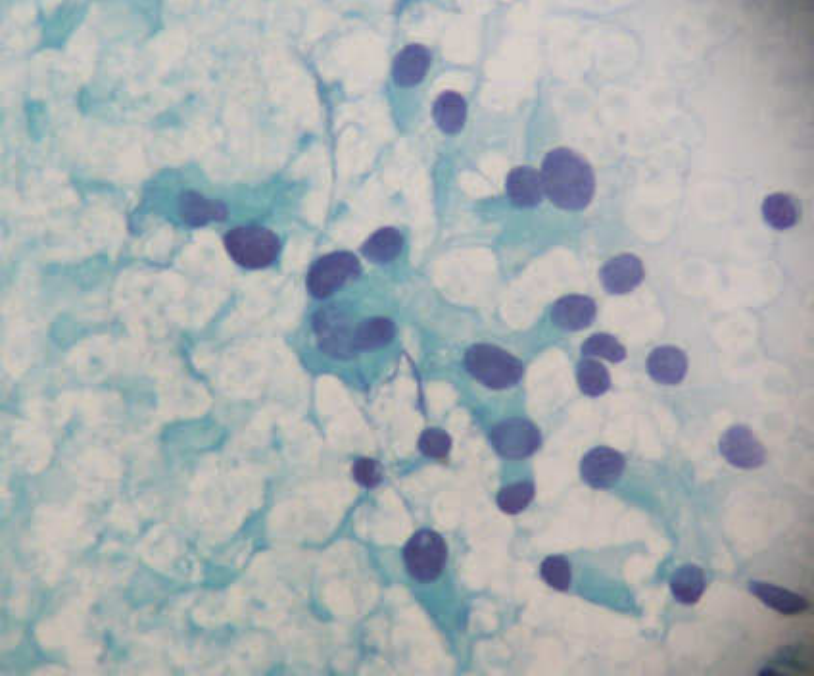
PT (Blue): Prothrombin Time, INR, ESR

4) CYTOLOGY LABORATORY

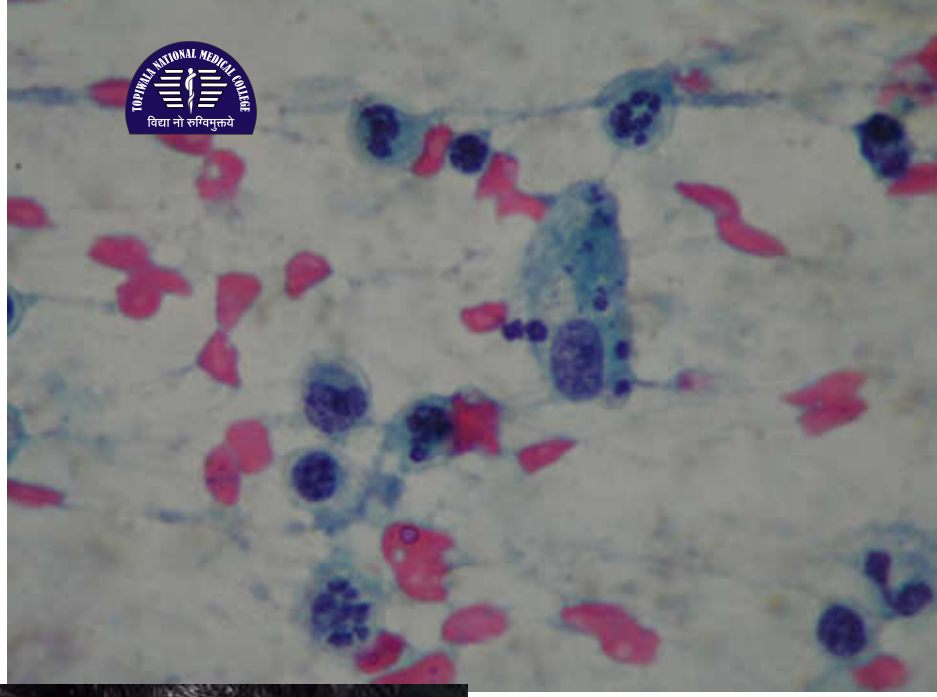
Investigations Done:

- **FNAC-** Fine Needle Aspiration Cytology-from 9.00 am to 2.00 pm
- **Fluid Cytology for malignant cells** (CSF, Pleural, Ascitic, Pericardial, Ovarian cyst, Synovial, etc)
- **Gynec PAP** smears: Smears sent fixed in alcohol before 3.00 pm on working days
- **Sexual assault case smears**
- **USG-guided FNAC** done in USG room from 12.30 pm to 3.00 pm (Monday to Friday)

Patient is called on 3rd working day/on their OPD day for **report**



Cytology Smears Stained by Papanicolaou stain



FNAC of cervical LN

5) Blood Centre

- **Blood Grouping & Cross Matching-** in plain vacutainers with indoor papers & requisition form from ward patients for request for blood components for transfusion

- **DCT** (Direct Coombs Test), **ICT** (Indirect Coombs Test) & **Rh Titre**

  Samples accepted till 11.00 am, reports dispatched within 3 hrs

- **Thalassemia patient** blood samples received on Tuesday, Wednesday & Friday.

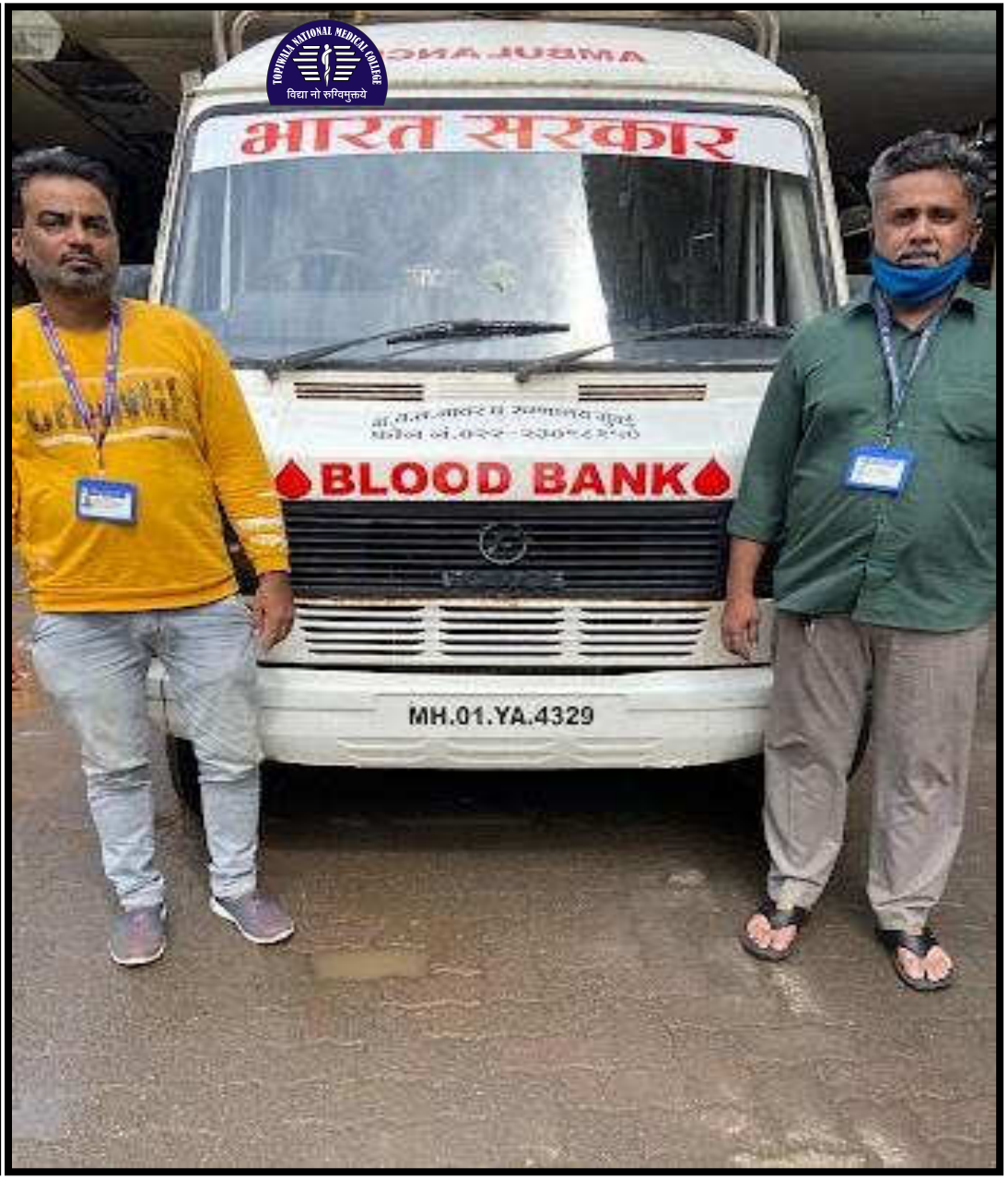
- Blood Grouping in **pregnant ladies, cord blood**

Blood Centre

E calls (Emergency)- Blood samples for grouping, Xmatching accepted 24x7, blood units reserved for 2-4 hours only, for obstetric patients -14 hours

- **CM (Coming Morning) calls** received from Monday to Friday upto 2.00 pm, on Saturdays upto 11.00 am. Blood bags reserved for 24 hours


बृहन्मुंबई महानगरपालिका
बा.य.ल.नायर ध.रुग्णालय - रक्तपेढी
MUNICIPAL CORPORATION OF GREATER MUMBAI
B.Y. L.NAIR CH. HOSPITAL - BLOOD BANK


भारत सरकार
BLOOD BANK
MH.01.YA.4329

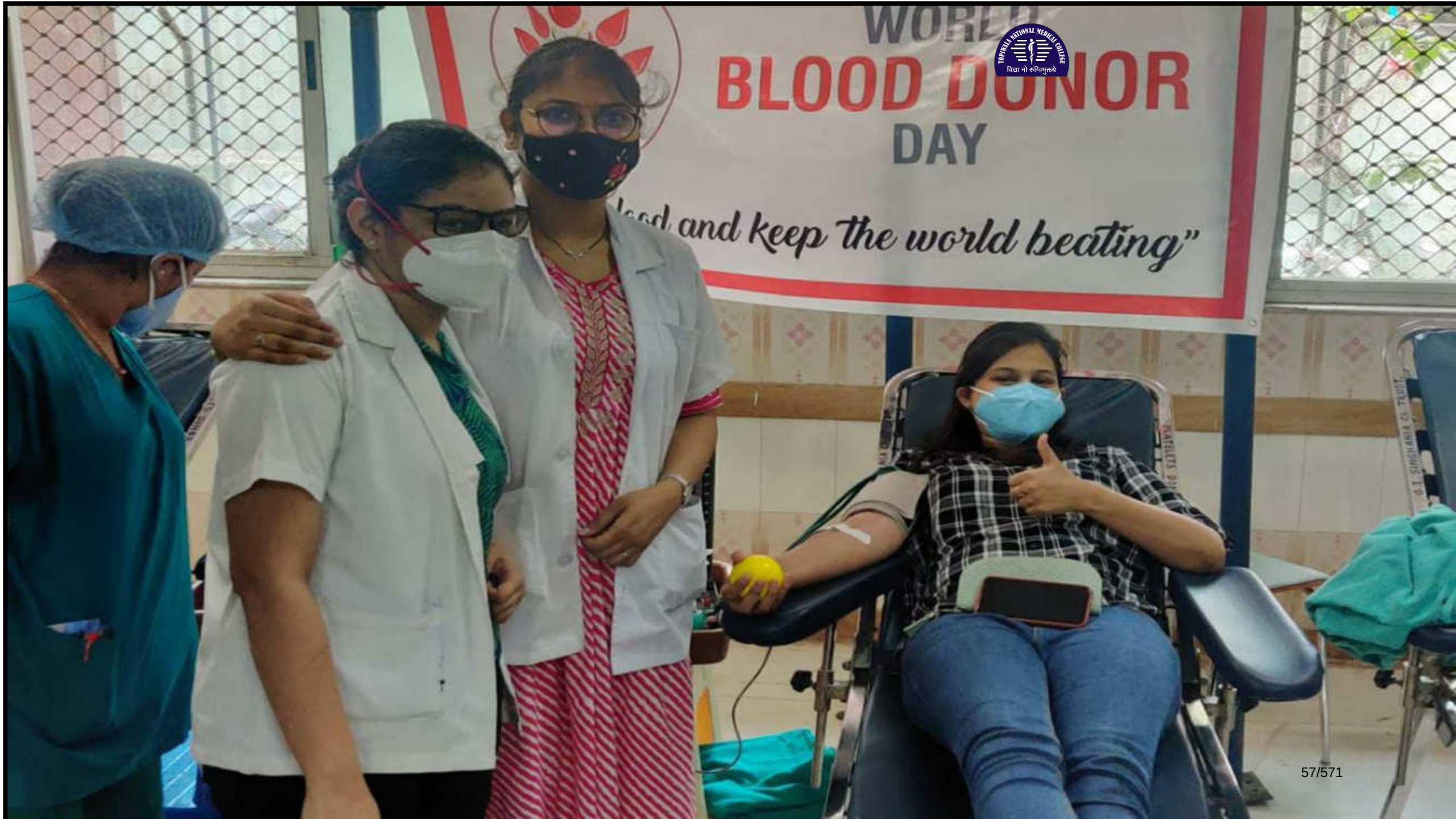
Out lood Camp

Blood Donation

Nair Blood Centre

Outdoor Blood Camp

Outdoor Blood Camp


WORLD
BLOOD DONOR
DAY
and keep the world beating"


CRYOFUGE 16


B


TOPIWALA NATIONAL MEDICAL COLLEGE
विद्या नो रुग्विमुक्तये

- Packed Red Blood Cells Conct 4-6°C
- Fresh Frozen Plasma -30 से -80°C
- Platelet Conct 22°C with agitation

Blood Centre-Issue of following components

- Packed RBCs
- Platelet Concentrate
- Single Donor Platelets-Donors provided by the concerned unit
- Fresh Frozen Plasma (FFP)/ [Covid Convalescent Plasma]
- Cryoprecipitate
- Whole blood (in <1% cases)

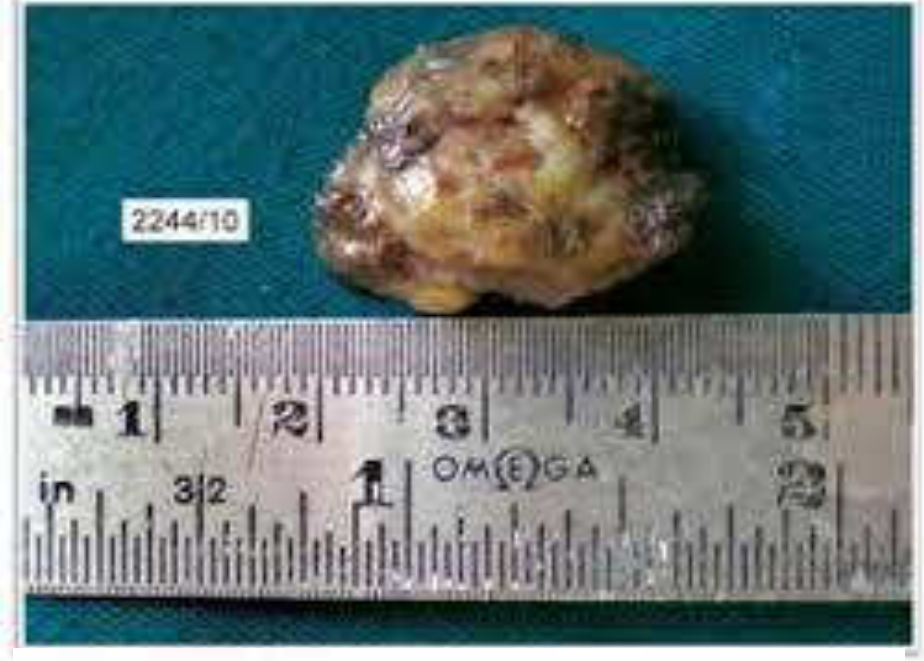
6) SURGICAL PATHOLOGY LABORATORY

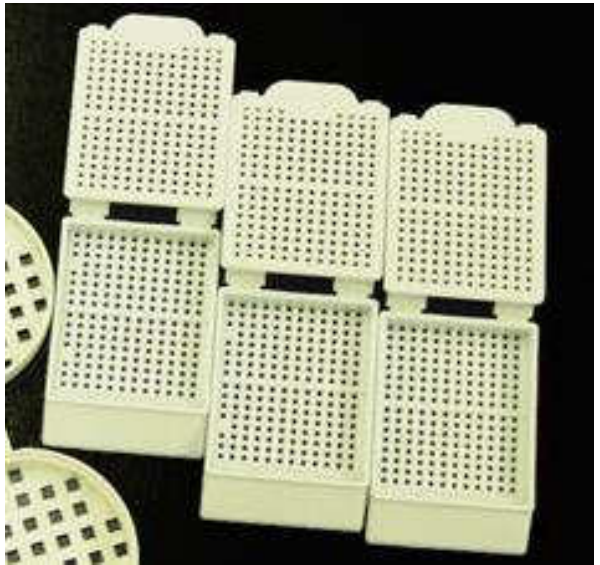
- All types of biopsies and surgically excised organs accepted on working days till 3.30 pm from Mon to Friday, till 1.00 pm on Saturday

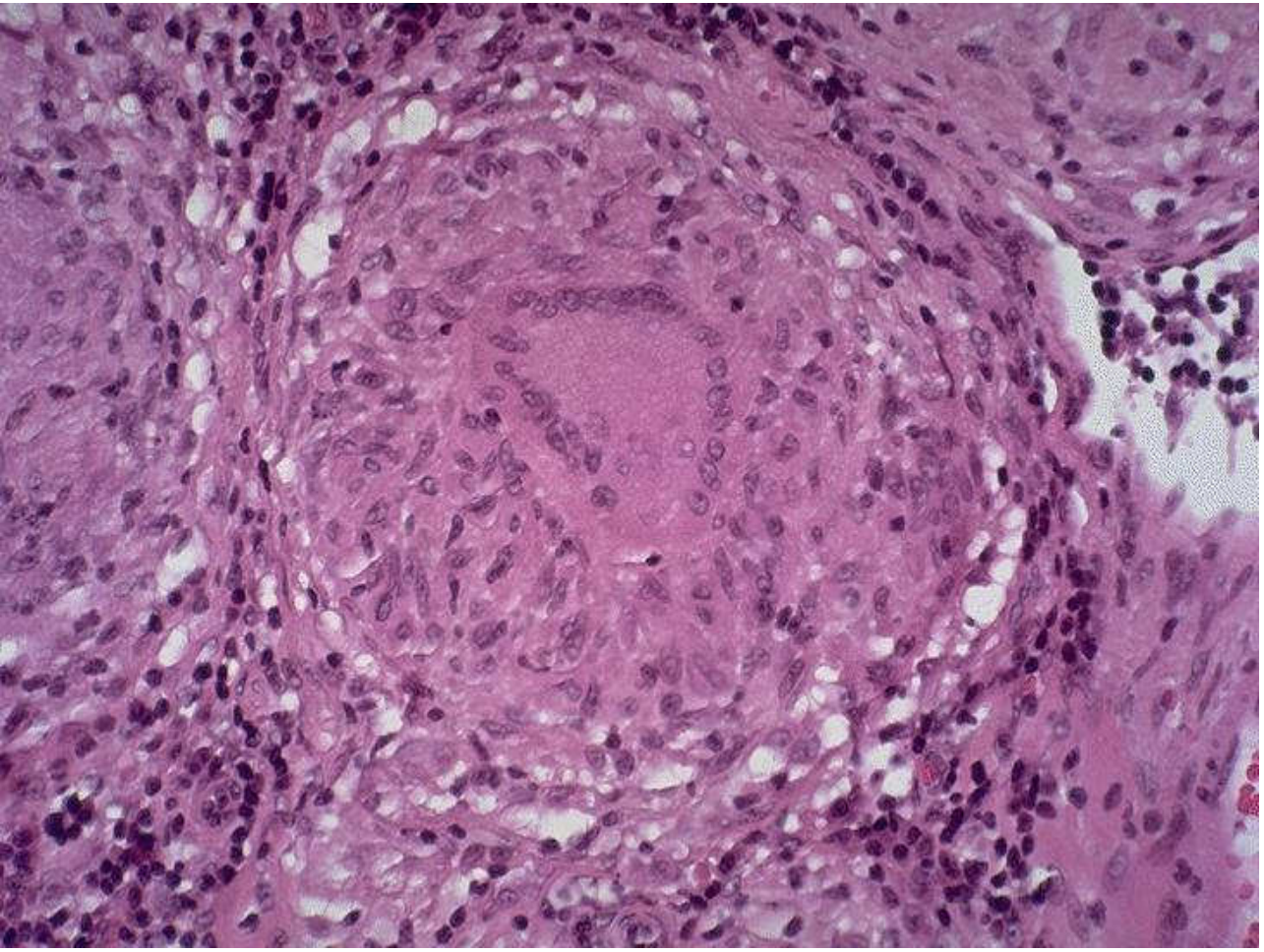
- Frozen section services also provided, report given within 45 minutes

- Immunohistochemistry services available where essential

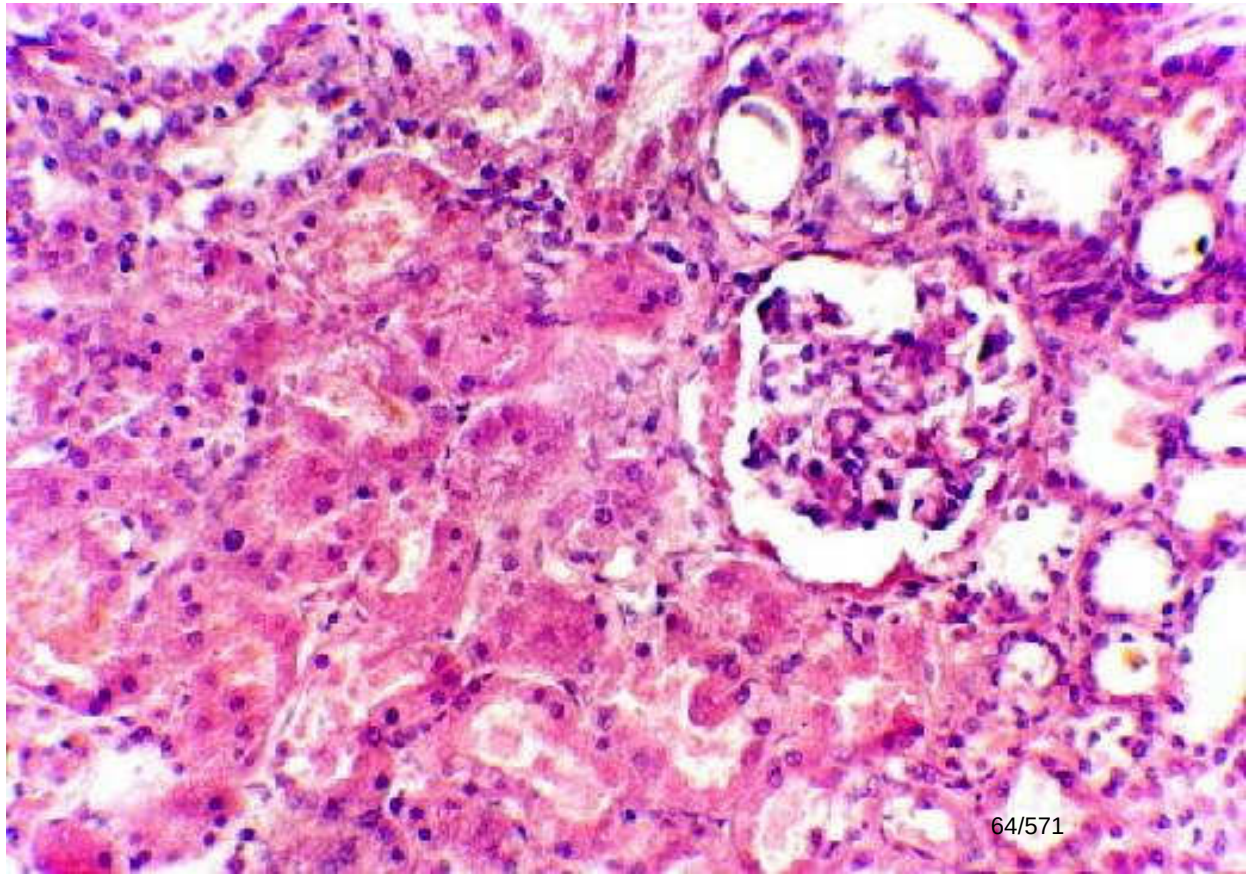
Automated Tissue Processi







Histopathology slide stained by Hematoxylin & Eosin stain



7) Post Mortem/Autopsy Section

- **Medical/Pathology Autopsy**

Cause of Death

Academic interest

Clinicopathologic (CPC) Meetings held once a month with Medicine Department

Every PM is followed by histopathologic examination

THANK YOU

BIOCHEMISTRY LABORATORY ORIENTATION

Dr. Neelam Patil,
(MBBS,MD,DNB,MNAMS
Six Sigma – Black Belt for laboratory)
Associate Professor,
Department of Biochemistry,
T. N. Medical College.

- General Clinical Biochemistry Laboratory
- Emergency Biochemistry Laboratory

Both these laboratories are now situated at OPD building 4th floor.

GENERAL Biochemistry LABORATORY

TIME -9:30 a.m.- 4:30p.m.(MONDAY TO FRIDAY)
9:30 a.m. -1:00 p.m.(SATURDAY)
WORKING ALL DAYS EXCEPT SUNDAY AND OPD HOLIDAYS

	Sample acceptance time	
1.	9:30 a.m.-10:30 a.m.	Ward Samples (All routine)
2.	10:30 a.m.- 11:30 a.m.	OPD Samples (All routine and Blood Sugar Fasting)
3.	12:30 a.m.-1.00 p.m.	OPD Samples (Blood Sugar Post Prandial)
4.	12:30 a.m.-1.00 p.m.	Ward Samples (Emergency)

INVESTIGATIONS DONE

1	Blood Sugar(Fasting)	14	Phosphorous
2	Blood Sugar(Post Prandial)	15	Sodium
3	Total Bilirubin	16	Potassium
4	Direct Bilirubin	17	Chloride
5	SGOT/AST	18	Cholesterol
6	SGPT/ALT	19	Triglyceride
7	Alkaline phosphatase	20	Amylase
8	Total Protein	21	Lactate Dehydrogenase(LDH)
9	Albumin	22	Urine Protein Calcium Phosphorus pH Electrolyte Creatinine
10	Blood Urea Nitrogen	23	Fluid Amylase Creatinine
11	Creatinine	24	CSF Sugar
12	Uric Acid	25	CSF Protein
13	Calcium	26	Breast Milk Electrolyte

EMERGENCY BIOCHEMISTRY LABORATORY

TIME -3 p.m. to Next day 7 a.m. (MONDAY TO FRIDAY)
11 a.m. to Next day 7 a.m.(SATURDAY)
ON SUNDAY AND OPD HOLIDAYS 7 a.m. to Next day 7 a.m.

Sample acceptance time 3 p.m. to 6 a.m. Next Day
ABG timing in E- Laboratory: - 4 p.m. to 6:15 a.m. Next Day

List of Emergency Laboratory Investigations

1.	Blood sugar (Random, Fasting & Post Prandial)
2.	Blood Urea Nitrogen
3.	Creatinine
4.	Electrolytes
5.	Amylase
6.	Calcium (Total/Ionised)
7.	Bilirubin (Total/Direct)
8.	CSF (Sugars, Proteins, Chlorides)
9.	Ascitic Fluid/Pleural Fluid- Proteins
10	ABG Analysis

QUALITY CONTROL

Set of procedures undertaken in a laboratory for the continuous assessment of work which is carried out and evaluation of tests for reliable report.

IQC - Internal Quality Control

EQC - External Quality Control with Biorad and CMC Vellore.

- **PATH TO BE FOLLOWED-**

1) Test ordering and utilization

2)Instructions to be given to patient

e.g Fasting-minimum 8hr

Post prandial collection – after two hours of meal etc.

3) Attachment of barcode sticker to vacutainer [HMIS]

4) Specimen collection

5) Filling up of requisition forms

6)Samples should be transported within one hour of collection. Take care not to hemolyze the sample.

Segregation

- Make racks or trays.
- Vacutainer racks provided to each ward.
- Make separate urine and other fluid tray.

Laboratory Request Form

- Dated
- Identification number (OPD No or IPD No)
- Unit has to be mentioned
- Patient’s full name, age, sex
- List of required specific tests

बृहन्मुंबई महानगरपालिका
विकृतिशास्त्र आणि अणुजीव शास्त्र विभाग
विकृतिचिकित्सा

..... रुग्णालय

दिनांक ..... २० आंतर/बाह्य रुग्ण नोंद क्रमांक .....

कक्ष/विभाग ..... खाट क्र. ..... डॉ. .....

नांव .....

पुरुष/स्त्री ..... वय ..... व्यवसाय .....

चिकित्सालयीन रोग निदान ..... रोगाचा कालावधी .....

पाठविलेली सामुग्री .....

आवश्यक तपास .....

व्याधि विवरण .....

.....

पूर्वीची प्रयोगशालेय तपासणी .....

अन्य संबंधित माहिती .....

विकृति चिकित्सेचे निष्कर्ष .....

दिनांक ..... रोजी सकाळी/दुपारी ..... वाजता बोलाविले.

वैद्यकीय अधिकारी

HP1-BMPP-32623-2018-19-10,000 X 200 Lvs (2)

बृहन्मुंबई महानगरपालिका
विकृतिशास्त्र आणि अणुजीव शास्त्र विभाग
विकृतिचिकित्सा

..... रुग्णालय

दिनांक 12 / 11 / २०१९ आंतर/बाह्य रुग्ण नोंद क्रमांक .....

कक्ष/विभाग 23 खाट क्र. ..... डॉ. .....

नांव Jamnial .....

पुरुष/स्त्री ..... वय ..... व्यवसाय .....

चिकित्सालयीन रोग निदान ..... रोगाचा कालावधी .....

पाठविलेली सामुग्री .....

आवश्यक तपास .....

व्याधि विवरण ..... ABG & NC, K .....

.....

पूर्वीची प्रयोगशालेय तपासणी .....

अन्य संबंधित माहिती .....

विकृति चिकित्सेचे निष्कर्ष .....

दिनांक ..... रोजी सकाळी/दुपारी ..... वाजता बोलाविले.

वैद्यकीय अधिकारी

बृहन्मुंबई महानगरपालिका
विकृतिशास्त्र आणि अणुजीव शास्त्र विभाग
विकृतिचिकित्सा

रुग्णालय

दिनांक 13/12 २० आंतर/बाह्य रुग्ण नोंद क्रमांक

कक्ष/विभाग 23 खाट क्र. डॉ.

नांव Dijambar

पुरुष/स्त्री M वय व्यवसाय

चिकित्सालयीन रोग निदान रोगाचा कालावधी

पाठविलेली सामुग्री

आवश्यक तपास

व्याधि विवरण AR 5

पूर्वीची प्रयोगशालेय तपासणी

अन्य संबंधित माहिती

विकृति चिकित्सेचे निष्कर्ष

दिनांक रोजी सकाळी/दुपारी वाजता बोलाविले.

वैद्यकीय अधिकारी

HP1-BMPP-28641-2017-18-6,000 X 100 Lvs (2)

बृहन्मुंबई महानगरपालिका
विकृतिशास्त्र आणि अणुजीव शास्त्र विभाग
विकृतिचिकित्सा

रुग्णालय

दिनांक 13/2/19 आंतर/बाह्य रुग्ण नोंद क्रमांक

कक्ष/विभाग खाट क्र. डॉ. MICU

नांव Smita / F

पुरुष/स्त्री वय व्यवसाय

चिकित्सालयीन रोग निदान रोगाचा कालावधी

पाठविलेली सामुग्री

आवश्यक तपास ABG

व्याधि विवरण

पूर्वीची प्रयोगशालेय तपासणी

अन्य संबंधित माहिती

विकृति चिकित्सेचे निष्कर्ष

दिनांक रोजी सकाळी/दुपारी वाजता बोलाविले.

वैद्यकीय अधिकारी

HP1-BMPP-32623-2018-19-10,000 X 200 Lvs (2)

BLOOD COLLECTION

VACUTAINERS With Colored Indicator Stoppers

					
Serum tube cloth activator	Sodium heparin tube	EDTA tube	Sodium citrate tube	Blood culture tubes	Sodium-fluoride+ potassium oxalate
A	B	C	D	E	F

Order of sample collection should be E—D—A—B—C—F.

Order of Draw

- Order of draw blood samples according to CLSI (Clinical and Laboratory Standards Institute)

- First draw sample for blood culture and sensitivity in order to prevent microbial contamination.

DIFFERENT TYPES OF VACUTAINERS

Sodium Citrate Vacutainer –

- Sky blue vacutainer
- Conc of citrate is 3.2% use for coagulation studies

Plain Vacutainer -

- Red vacutainer for serum- Biochemical parameters LFT, RFT, Total Proteins, etc.
- It is also use in serology and immunology tests.

SST - Serum Separator Tube

Heparinized Vacutainer -

- Green Vacutainer contains heparin (conc is 0.2mg/ml of blood)
- Prevents coagulation of blood by acting as an antithrombin to prevent the transformation of prothrombin into thrombin and thus the formation of fibrin from fibrinogen.
- It is mainly use for blood gas analysis and D-dimer
- Disadv- blood should be examined within 8 hr because it prevent coagulation for limited time.
- It causes platelet aggregation so cannot use for CBC

EDTA Vacutainer -

- Purple colour vacutainer contains EDTA
- Since this anticoagulant preserves the cellular components well it is use for hematological examinations. It prevent blood coagulation by binding to Ca which is essential for clotting.
- It is used in the conc of 1-2mg/ml blood

Fluoride vacutainer -

- Grey colour vacutainer contains fluoride.
- The conc of 5mg/ml blood is used.
- It inhibits glycolysis enzyme enolase by forming complex with Mg.
- Used for blood glucose estimation.

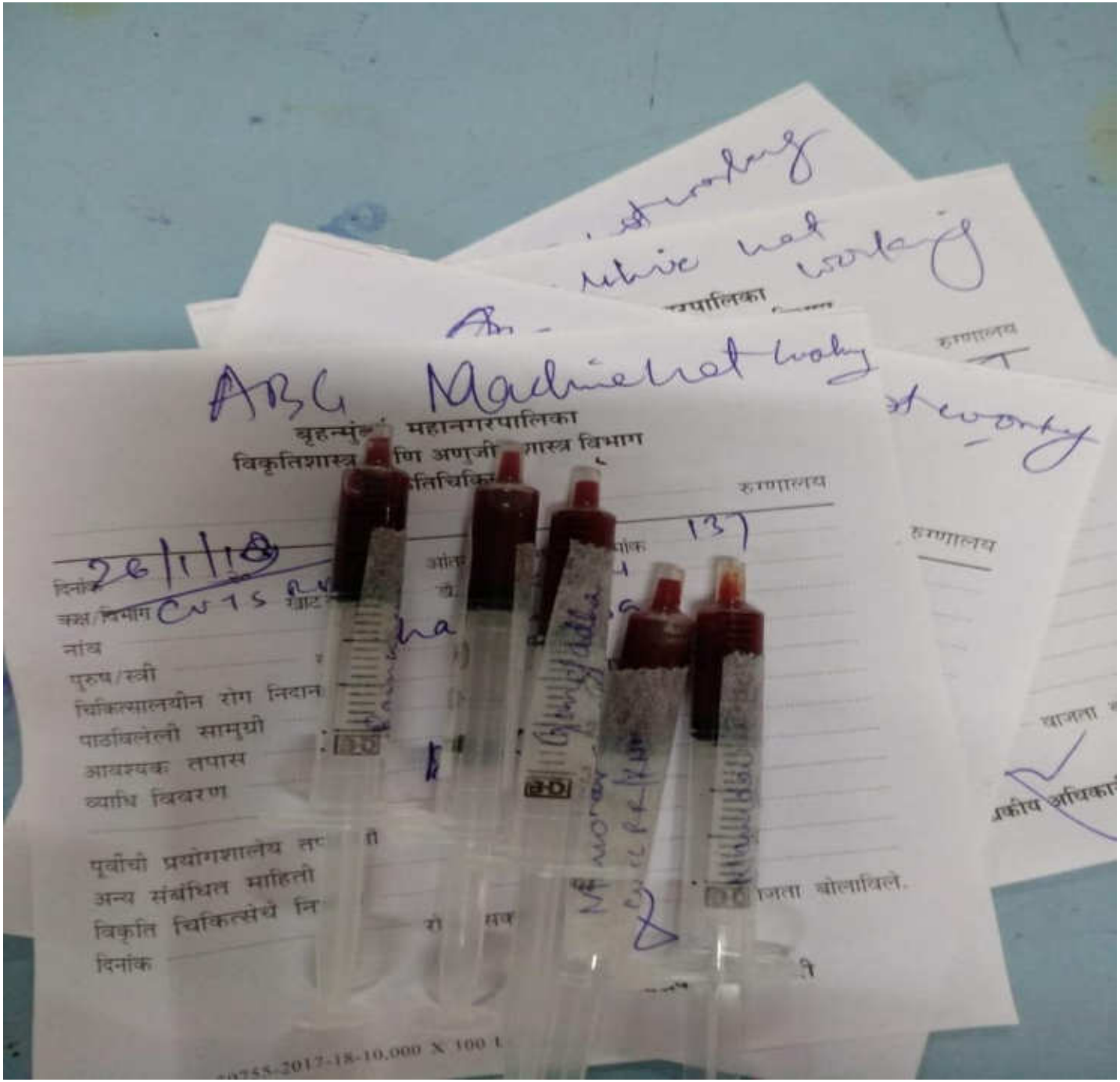
Sample Collection -

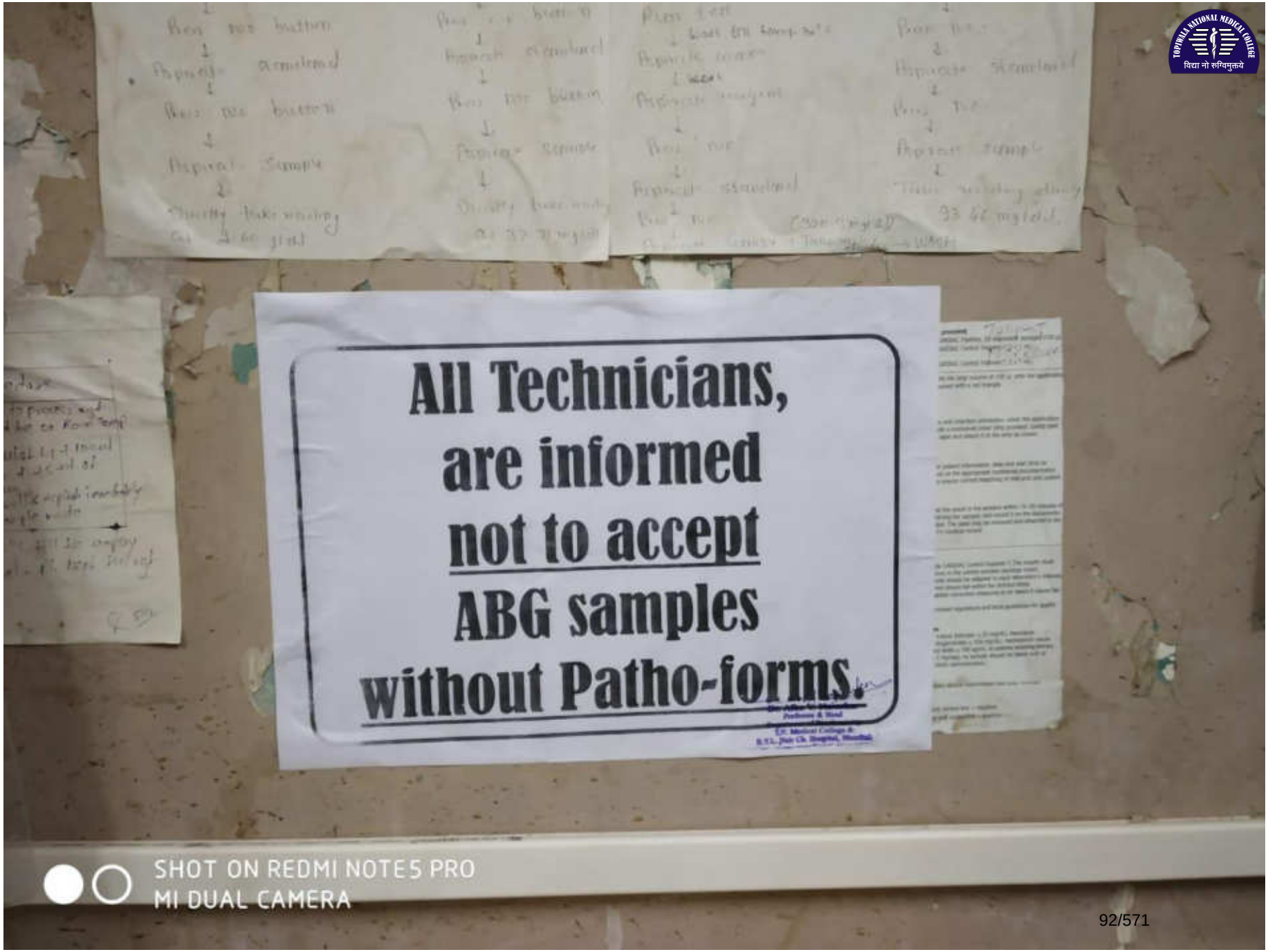
- For fluids – Plain sterile container
- For fluid / CSF sugar – fluoride vacutainer
- For sugar estimations 2ml sample needed
- For serum biochemistry 4-5 ml sample
- For ionised calcium 1-1.5ml in heparinised vacutainer

Sample for ABG

- 1 to 1.5 ml Heparin flushed air tight syringe packed in ice pack should reach in 10 minutes to E Lab.
- Heparinised syringe are also available in wards

- Report handed over immediately within 10 to 15 minutes


ABG Machine not working
बृहन्मुंबई महानगरपालिका
विकृतिशास्त्र
रुग्णालय
26/1/18
नांव
पुरुष/स्त्री
चिकित्सालयीन रोग निदान
पाठविलेली सामुग्री
आवश्यक तपास
व्याधि विवरण
पूर्वीची प्रयोगशालेय
अन्य संबंधित माहिती
विकृति चिकित्सेचे
दिनांक



Fluid Samples

- Biological fluid samples should be separate for Biochemistry / Microbiology / Pathology except CSF
- For microscopy sample should be in EDTA

MUNICIPAL CORPORATION OF GREATER MUMBAI
T.N. MEDICAL & B.Y. L. NAIR CH. HOSPITAL
EMERGENCY LABORATORY

Patient's Name.....Date.....Lab No.....

Ward / OPD.....Reg.....Dr.....Diagnosis.....

Parameter	Result	Normal Range	Parameter	Result	Normal Range
Glucose F		70-100mg %	Ca ++		9-11 Mg.%
Glucose R		up to 150mg %	Lonic Ca ++		4.49-5.29mg%Mg.%
BUN		10-15mg %	Amylase		up to 120 1 0/1
S. Creatinine		0.8-1.5 mg %	Fluid Amylase		
Sodium		133-145 mEq/lit	T. Bilirubin		up to 1.2 mg.%
Potassium		3-5.6 mEq./lit	Bilirubin		0 to 0.3 mg %
Chloride		92-106 mEq/Lit	D. Bilirubin		

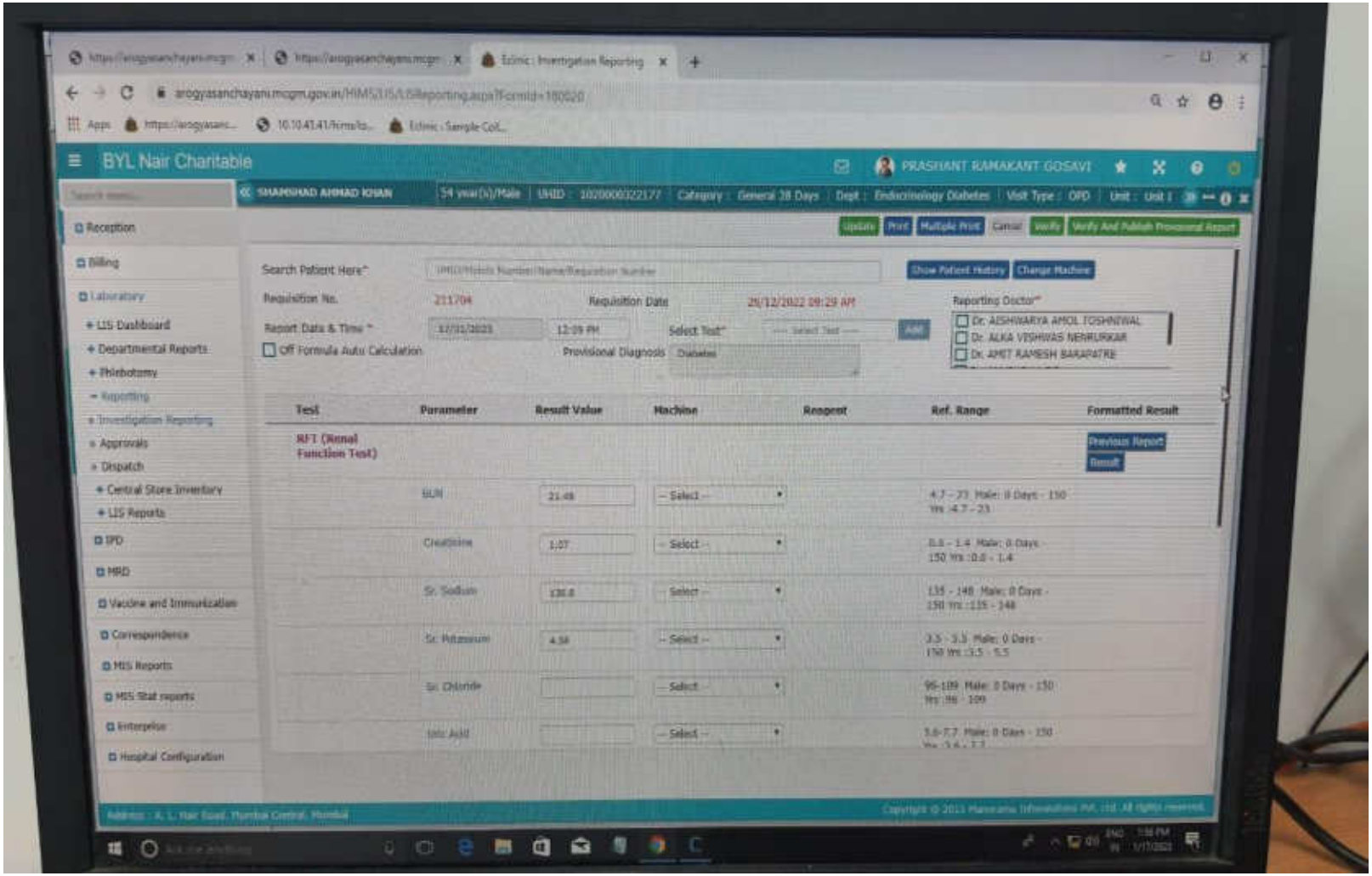
CSF — Cl^-, Sugar, Protein

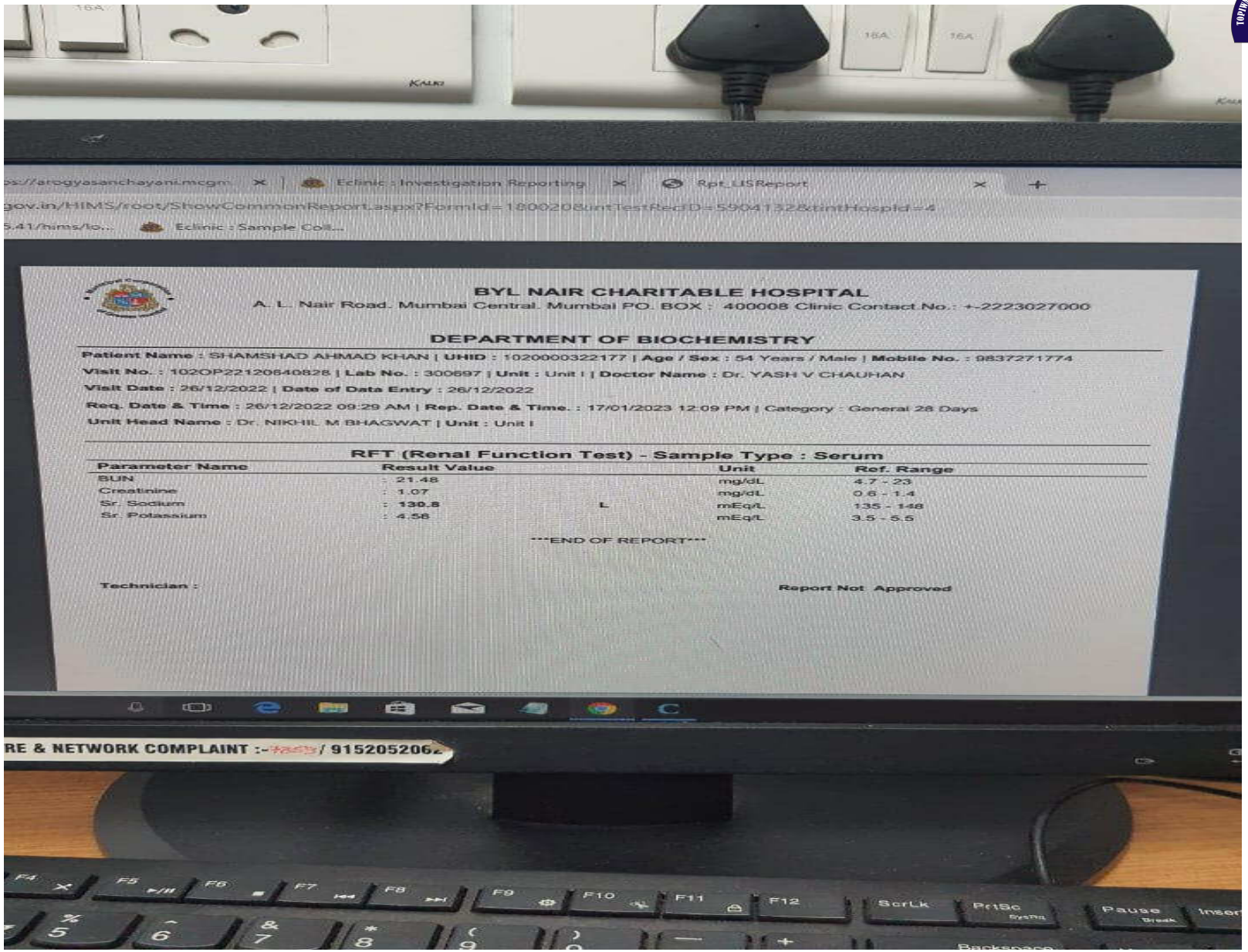
Ascitic Fluid — Protein

Pleural — Cholesterol

Sinovial

Hospital Management Information System (HMIS)


BYL Nair Charitable
PRASHANT RAMAKANT GOSAVI
SHAMSHAD AHMAD KHAN
Reception
Billing
Laboratory
LIS Dashboard
Departmental Reports
Phlebotomy
Reporting
Investigation Reporting
Approvals
Dispatch
Central Store Inventory
LIS Reports
IPD
MRD
Vaccine and Immunization
Correspondence
MIS Reports
MIS Stat reports
Interpolse
Hospital Configuration
Search Patient Here*
Requisition No.
211704
Requisition Date
26/12/2022 09:29 AM
Reporting Doctor*
Dr. AISHWARYA AMOL TOSHNIWAL
Dr. ALKA VISHWAS NENRURKAR
Dr. AMIT RAMESH BARAPATRE
Report Date & Time *
12:09 PM
Select Test*
Off Formula Autu Calculation
Provisional Diagnosis
Diabetes
Show Patient History
Change Machine
Update
Print
Multiple Print
Cancel
Verify
Verify And Publish Provisional Report
Test
Parameter
Result Value
Machine
Reagent
Ref. Range
Formatted Result
RFT (Renal Function Test)
Previous Report
Result
BUN
21.48
Creatinine
1.07
Sr. Sodium
138.8
Sr. Potassium
4.58
Sr. Chloride
Uric Acid



BYL NAIR CHARITABLE HOSPITAL

A. L. Nair Road, Mumbai Central, Mumbai PO. BOX : 400008 Clinic Contact No.: +-22230270000

DEPARTMENT OF BIOCHEMISTRY

Patient Name : SHAMSHAD AHMAD KHAN | **UHID** : 1020000322177 | **Age / Sex** : 54 Years / Male | **Mobile No.** : 9837271774
Visit No. : 102OP221206840828 | **Lab No.** : 300697 | **Unit** : Unit I | **Doctor Name** : Dr. YASH V CHAUHAN
Visit Date : 26/12/2022 | **Date of Data Entry** : 26/12/2022
Req. Date & Time : 26/12/2022 09:29 AM | **Rep. Date & Time.** : 17/01/2023 12:09 PM | Category : General 28 Days
Unit Head Name : Dr. NIKHIL M BHAGWAT | **Unit** : Unit I

RFT (Renal Function Test) - Sample Type : Serum

Parameter Name	Result Value		Unit	Ref. Range
BUN	: 21.48		mg/dL	4.7 - 23
Creatinine	: 1.07		mg/dL	0.6 - 1.4
Sr. Sodium	: 130.8	L	mEq/L	135 - 148
Sr. Potassium	: 4.58		mEq/L	3.5 - 5.5

END OF REPORT

Technician :

Report Not Approved

RE & NETWORK COMPLAINT :- / 915205206


Thank You

Microbiology Lab Services

Department of Microbiology

TNMC & BYL Nair Ch. Hospital, Mumbai

Introduction

- The Department of Microbiology offers diagnostic services for infectious diseases through its different divisions viz Bacteriology, Mycobacteriology, Mycology, Parasitology, Serology, Immunology including ICTC, RTI/STI and covid 19 diagnostic tests.
- The department is NABL accredited as per ISO 15189: 2012 for all the serological, immunological tests, and certain tests in Mycology, Mycobacteriology, Parasitology, TRUENAT & CBNAT.
- COVID-19 diagnostic services: Rapid Antigen testing, TRUENAT & CBNAT
- Emergency laboratory services for processing specimens of emergency nature or from seriously ill patients.
- PCR tests: samples routed to Kasturba PCR Lab

Section/Location	Test Offered	Specimen Type
ICTC 3rd floor, 311, College Building	**HIV antibody test**	Blood Collected in Red/Gold top Vacutainer
CD4 Laboratory 3rd floor, 311, College Building	**CD4 test** (for patients with requisition form from Nair ART Centre)	Blood Collected in Purple top Vacutainer
Serology 3rd Floor, 311E, College Building	**Widal, RA, ASO, VDRL/RPR** **Rapid HBsAg/HCV** (only for hemodialysis patients)	Blood Collected in Red/Gold top Vacutainer
	Fever Profile (Rapid tests for leptospira IgM, Dengue NS1, Dengue IgM /IgG, Rapid Malaria Antigen)	Blood Collected in Red/Gold top and Purple top Vacutainer
	Specimens referral to Kasturba PCR Lab- for **Leptospirosis and Dengue PCR**	Blood Collected in Purple top Vacutainer
	Specimens referral to Kasturba PCR Lab for H1N1 PCR	Nasal or Throat swab placed in VTM

Section/Location	Test Offered	Specimen Type *
Immunology 3rd floor, 311A, College Building	**ELISA- HBsAg, HCV, HAV, HEV, Chikungunya**	Blood Collected in Red/Gold top Vacutainer
Clinical Bacteriology 3rd floor, 313, College Building	**Microscopy (Gram Staining, Albert staining as per request) & Culture for aerobic bacteria Antimicrobial susceptibility test**	All specimens collected aseptically in sterile containers
	BACTEC Aerobic plus for adults (as per availability)	Blood
	BACTEC Peds plus for children / neonates (as per availability)	Blood
	Microscopy and culture of anaerobic bacteria	Pus aspirate/ tissue collected aseptically in sterile containers in RCM

Section/Location	Test Offered	Specimen Type *
Mycobacteriology 3rd floor, 311G, College Building	**Xpert MTB/RIF: CBNAAT** **AFB staining,** **Mycobacterial culture for EPTB Samples,** **Fluorescence Microscopy**	Sputum , Bronchoalveolar lavage, Gastric lavage Pus, Aspirate Cerebrospinal fluid, Ascitic/ Peritoneal Pleural fluid, Pericardial fluid Synovial fluid, Bone marrow Tissue / Biopsy
Parasitology 3rd floor, 313, College Building	**Saline and Iodine mount,** **Stool for occult blood,** **Opportunistic Parasite infections**	Stool Liver abscess pus/ any other aspirate, Sputum
Mycology 3rd floor, 311C, College Building	**KOH mount,** **India Ink for cryptococcus,** **Fungal culture**	Sputum , Pus, Hair , Skin scrapping/ scales Nail , Eye specimens (corneal scrape, corneal button, conjunctival scraping) Tissue / Biopsy

Section/Location	Test Offered	Specimen Type *
RSTRRL 3rd floor, 305, College Building	**RPR/VDRL/ TPHA/ HBsAg/ HCV of ART and STI/ RTI patients** **Gram staining (STI/ RTI patients)**	Blood Collected in Red/Gold top Vacutainer Sterile swabs and discharge
Molecular Testing Laboratory Central Laboratory, 4th floor, OPD Building	**SARS-CoV-2 CBNAAT/TRUENAT Testing**	Nasal or Throat swab placed in VTM (for CBNAAT) and in VLM (for Truenat)

Sample acceptance timings

	Sections	Timings
Samples from all Patients	Serology & Immunology	9.00 am to 4.00 pm
	Direct Walk In for HIV	9.00 am to 4.00 pm
	Mycology & Parasitology	9.00 am to 3.00 pm **9.00 am to 12 noon – Stool and sputum**
	Clinical Bacteriology	9.00 am to 4.00 pm - Body Fluid / Occular specimens/ Aspirated pus /Tissue / Stool for Cholera **9.00 am to 12 noon – Urine, Stool and sputum**
Xpert MTB/RIF samples from all patients	Mycobacteriology	9.00 am to 12 pm
All specimens from PLHIV patients for Xpert MTB/RIF	Mycobacteriology	9.00 am to 3.30 pm
SARS-CoV-2 CBNAAT/Truenat Testing	Truenat Laboratory	9.00 am to 3.00 pm

Sample collection

Fundamentals of specimen collection

- Aseptic collection
- Specimen should be from actual site of infection
- Optimal collection time- Collection before giving antibiotics
- Quantity should be sufficient
- Appropriate use of
  - Collection devices
  - Specimen container
  - Culture media
- Proper Labelling of containers
- Duly filled requisition form

Rejection criteria

- **Any specimen received in formalin**
- **24 hour sputum collection**
- **Single swab for multiple requests**
- **Non sterile container**
- **Obvious contamination by foreign material**
- **No requisition form**
- **Label and requisition form mismatch**

Urine sample collection

- Mid stream urine
- Suprapubic catheter
- Indwelling catheter urine
- Container
- Sterile, wide mouth
- Transport 2 hours if delay refrigerated
- Requisition: Type of sample , Antibiotics

  Diabetes, pregnancy

Sputum collection

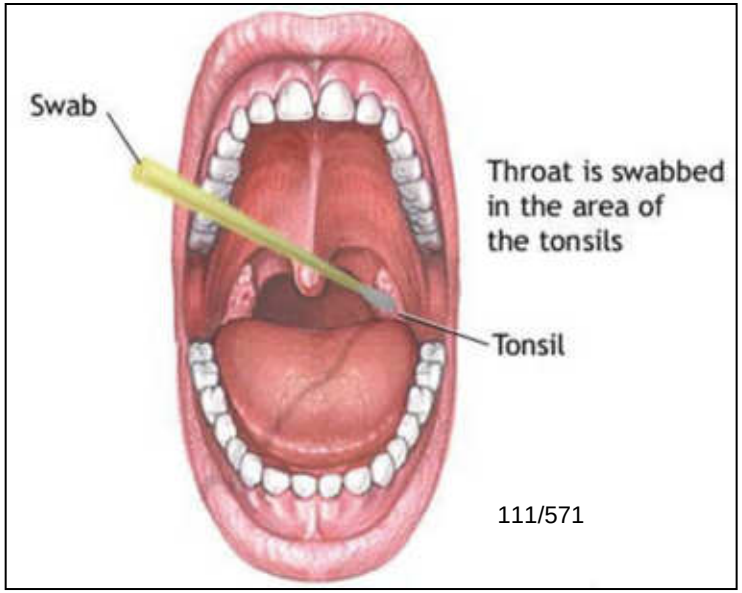
- Early morning sample
- Induced sputum
- Tracheal aspirates

- Sterile container
- Immediate transport

- Requisition imp- Bacterial or AFB stain/ culture?

Throat swab

- moistened sterile swabs used to collect sample
- Avoid touching the buccal mucosa and uvula to prevent gagging
- Requisition- diphtheria? Pharyngitis? Rheumatic fever, immunization history imp



Stool specimen collection

- Sterile wide mouth container
- Immediate transport

Requisition-

- Age of patient
- Diarrhea, dysentery,
- Cholera (Hanging drop preparation)
- Helminthic infestation

Pus sample collection

- Aspirated pus is preferred sample
- Sterile Swab
- To be put in sterile container and send to the Lab
- Kindly do not send syringe and needle.

Requisition

Nature & site of wound

Antibiotics

Gas gangrene (spore bearers)/ Diabetic foot/ anaerobic culture: Sample to be sent in RCM

biopsy preferred

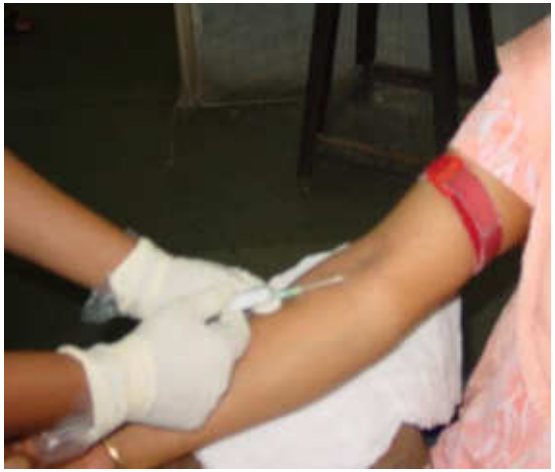
Body Fluids

- CSF, Pleural fluid, Pericardial fluid, Vitreous fluid, Ascitic fluid
- Aseptic collection
- Adequate sample
- Never refrigerate CSF sample

- Requisition
- Detail History

Blood culture

- Blood culture broth (Hartley's broth)
- BACTEC bottle
- Stringent aseptic collection
- Bed side inoculation into the Blood culture broth (Heartly's broth)/ BACTEC bottle
- Never refrigerate



- Requisition
- History

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MUNICIPAL CORPORATION OF GREATER MUMBAI HC217

TOPIWALA NATIONAL MEDICAL COLLEGE & BYL NAIR CH. HOSPITAL, MUMBAI

DEPARTMENT OF MICROBIOLOGY

TEST REQUISITION FORM

LAB No.

PATIENT DETAILS	SPECIMEN DETAILS
Name:	**Nature of specimen:**
Age/ gender: **Reg. no.:**	**Date & Time of collection:**
OPD/ Ward: **Unit:**	**Site of collection:**
Date of admission:	**Provisional Diagnosis:**

INVESTIGATION REQUIRED (please tick)

I. Clinical Bacteriology (College bldg, Room. no.313)

- **Aerobic culture** (SCAST Smear, culture & Antimicrobial susceptibility test)
- Throat swab for Diphtheria
- Stool for Hanging drop preparation
- MRSA screening
- **Anaerobic culture**
- Gram stain only
- **Any other investigation (not listed above)**

Relevant Clinical information for Bacteriology

- **Infection**: Community acquired/Hospital acquired?
- Fever : Yes/ No Duration:
- Antibiotics received: Yes/ No Details:
- Invasive procedures: Yes/ No Details:
- Preoperative/ Intraoperative/Postoperative sample
- Related previous test reports:
- **Full Address mandatory:** _____ **(Cholera, Typhoid, TB)** _____

II. Mycobacteriology (College bldg, R. no. 311)

- AFB Smear
- AFB Culture

Relevant clinical information for Mycobacteriology

H/o Weight loss Past H/o TB:
H/o AKT taken: H/o TB contact:

V. Any other investigation (not listed above)

III. Mycology (College bldg, R. no. 311)

- Only Microscopy
- Microscopy and fungal culture
- Pneumocystis carinii pneumonia

Relevant clinical information for Mycology

Occupation: Immunosuppression:
H/o Diabetes, Trauma/Injury by vegetative matter, contact lens use

For Laboratory use only

Date specimen received:

Time of receipt:

Name & sign of receiver:

IV. Parasitology (College bldg, R. no. 313[B])

- Stool - routine & microscopy
- Stool- opportunistic parasites
- Pus/Liver aspirate – Entamoeba
- Cyst fluid- Echinococcus
- Ocular sample/ fluid- Acanthamoeba
- Other(please specify below)

Requesting clinician

Sign & date : _____

Name : _____

Designation: _____

Blood for serological tests

- In red top/ yellow top vacutainer

  Tests-

- WIDAL, VDRL, RA, ASO, IgM & IgG- Leptospira, dengue NS1 & IgM, Rapid HBsAg & HCV
- ELISA- HBsAg, HCV, Chikungunya IgM, HAV & HEV

- Purple top vacutainer:
- Malaria Ag detection test- whole blood requires EDTA sample,

HIV Testing

- In red top/ yellow top vacutainer
- Pre-test counselling by Doctors in wards
- Sample to be sent with informed written consent form to be filled and signed by patient/ relative

मुंबई जिल्हे एड्स नियंत्रण संस्था

एच्. आय्. व्ही. चाचणीसाठी लिखित संमती

मी ह्याद्वारे नमूद करतो / करते की, माझ्या रक्ताच्या नमुन्यावर एच्.आय्.व्ही. संबंधाने करावयाच्या चाचणी बाबत माझ्याशी विचार-विमर्श करण्यात आला असून मला त्या संबंधीची माहिती पूरविण्यात आली आहे. एच्.आय्.व्ही. संसर्गाबाबत करण्यात येणाऱ्या चाचणीच्या संभाव्य निष्कर्षाबाबत मला समजाविण्यात आले आहे. त्याचप्रमाणे, एच्.आय्.व्ही. म्हणजे काय, त्याचा संसर्ग कसा होतो, त्याचा प्रतिबंध कसा केला जातो, चाचणीची प्रक्रिया, तिची मर्यादा आणि चाचणीच्या निष्कर्षाचा अर्थ आदि संबंधी सर्व माहिती, मला समजेल अशा पद्धतीने स्पष्टपणे सांगण्यात आली आहे.

माझ्या एच्.आय्.व्ही. संसर्गाची पातळी निश्चित करण्यासाठी, माझ्या रक्ताच्या नमुन्यावर चाचणी करण्याकरीता मी ह्याद्वारे माझी संमती देत आहे.

Sign of Patient or Relative

आशिलाची स्वाक्षरी

दिनांक - / / २०

टीप: १) रुग्णालयात विविध चाचण्या / तपासणी करण्यासाठी घेतल्या जाणाऱ्या सर्वसामान्य संमती मध्ये एच्.आय्.व्ही. संबंधीच्या संमतीचा समावेश नसतो. एच्.आय्.व्ही. चाचणीसाठी त्यासंबंधीची वेगळी संमती घेण्यात यावी.

२) अज्ञान व्यक्तींच्या संदर्भातील चाचणीसंबंधीची आवश्यक संमती, अशा व्यक्तींच्या / बालकाच्या पालकांकडून घेतली जावी.

३) मानसिक आजाराने पिडीत असलेल्या व्यक्तीकडून, त्यांच्या सध्याच्या स्थितीबाबत नेमून दिलेल्या अधिकाऱ्याने दिलेल्या माहितीच्या आधारावर एच्.आय्.व्ही. चाचणीसाठी संमती घेण्यात यावी अथवा अशा व्यक्तींच्या काळजीची जबाबदारी स्विकारलेल्या व्यक्तीकडून एच्.आय्.व्ही. चाचणी करण्यापूर्वी संमती घेण्यात यावी.

४) बेशुद्धावस्थेतील रुग्णांच्या बाबतीत, उपचारांच्या दृष्टीने एच्.आय्.व्ही. संसर्गाचे निदान करण्याची आवश्यकता असल्यास, या संबंधीची लिखित संमती रुग्णाचे पालक, पती / पत्नी जवळचे नातेवाईक यांच्यापैकी, जो त्यावेळी उपलब्ध असेल त्याच्याकडून घेण्यात यावी. रुग्णांच्या नातेवाईकांपैकी कोणीही उपलब्ध नसल्यास, आणि उपचारांसाठी अशी चाचणी अत्यावश्यक असल्यास, रुग्णांवर उपचार करणाऱ्या दोघा डॉक्टरांची याबाबतची शिफारस / अनुमती घेऊनच ही चाचणी करण्यात यावी.

५) जर रुग्णास वैद्यकीय दृष्टया फायदेशीर ठरत असेल तर एच्.आय्.व्ही. संसर्गाची स्थितीसहित इतर गोपनीय वैद्यकीय माहिती अनैच्छिक रित्या (Non Voluntary Disclosure) उघड करता येऊ शकते, किंवा रुग्णांच्या ओळखता येण्याजोग्या साथीदारास (Identifiable Partner) रुग्णांकडून एच्.आय्.व्ही. संसर्गाचा संभाव्य लैक्षणिक धोका असल्यास पण अशी गोपनीय माहिती उघड करता येऊ शकते. ही माहिती रुग्णाच्या उपचारात प्रत्यक्ष सहभाग असलेल्या अधिकाऱ्यापुढे उघड करण्यात यावी. जर रुग्णांच्या जीवाला (आत्महत्येच्या विचारांचा) किंवा त्याच्या/तिच्या साथीदाराच्या / पती / पत्नीच्या जीवाला धोका असेल तरी देखील ही माहिती उघड करता येऊ शकते. (Partner Notification)

भारत सरकारच्या कायदा व सुचनांनुसार वरील टीपांमध्ये बदल होऊ शकतो.

मी लिहून देतो / देते की, मी दिनांक / / २० रोजी माझ्या स्वत:चे / मुलाचे / मुलीचे एच्.आय्.व्ही. करीता घेण्यात आलेल्या रक्त तपासणीचा रिपोर्ट घेण्याकरीता आलो / आले आहे. मला संबंधीत रिपोर्टविषयी संपूर्ण माहिती दिली आहे व माझे पुर्ण समाधान झाले आहे.

दिनांक: / / २० रोजी रिपोर्ट घेतला आहे.

स्वाक्षरी :.....

PCR

- 3 ml Blood in 2 purple top vacutainer: Leptospira, Dengue,
- Throat swab in VTM: H1N1
- Duly filled requisition forms: available in 311E (Serology)

Brihanmumbai Mahanagarpalika
KASTURBA HOSPITAL FOR INFECTIOUS DISEASES
MOLECULAR DIAGNOSTIC REFERENCE LABORATORY
Mumbai: 400 011

Lab No. : L –
Date:

Date :
Hospital Name, Add:
Bed/Ward/ Unit :

PROFORMA FOR LEPTOSPIRA

Patient's Details :

Full Name : .....

Registration No. : ..... Age: ...../ Sex : Male/Female.....

Contact Address : .....

.....

Contact No. : ..... Education:
Sample type : Date & Time of Sample Collection: .....

Clinical Details	Occupation	Water Contact	Animal Contact	Type of Contact
Flu like Illness	Farmer	Rain Water	Rats	Occupational
Headache	Outdoor Worker	Water Sport	Mice	Recreational
Myalgia	Indoor Worker	Swimming	Cattle	Wound
Pyrexia	Fish Farmer	Fishing	Dogs	Bite
Vomiting	Water Worker	River	Sheep	Abrasion
Diarrhea	Veterinarian	Canal	Farm animals	Immersion
Conjunctivitis	Medical	Lake	Unknown	Unknown
Abnormal LFT	Teacher	Pond	Other	Other (Specify)
Jaundice	Student	Ditch		
Hepatic Failure	Housewife	Sewage		
Renal Failure	Military	Other (Specify)		
Meningitis	Retired			
Retro-orbital Pain	Unemployed			
Other	Other (Specify)			
Died				

Report of other Investigations already done:	Additional Information :
Lepto Dri Dot : Lepto ELISA : Other investigations :	
Date of Onset of Symptoms : **Date of Antibiotic Treatment:** **Antibiotic given:**	**Clinician Name:** **Designation:** **Signature with Date:**

Brihanmumbai Mahanagarpalika
KASTURBA HOSPITAL FOR INFECTIOUS DISEASES
MOLECULAR DIAGNOSTIC REFERENCE LABORATORY
Mumbai: 400 011

Lab No. :
Date:

Date:
HOSPITAL name, add:
Ward/Bed/Unit:

PROFORMA FOR DENGUE FEVER

Patient's Details :

Full Name : .....

Registration No. : ..... Age: ...../ Sex: Male/Female .....

Contact Address : .....

.....

Contact No. : ..... Date of sample collection : .....
Sample: Time of sample collection:

Clinical Findings: Date of onset of first symptoms:	Hemorrhagic Manifestation: Yes / No
a) Fever :..... Days b) Headache :..... Days c) Bodyache :..... Days d) Joint Pain :..... Days e) Rash :..... Days f) Retro-orbital Pain:..... Days	If Yes, describe: a) Petechiae b) Purpura/Echymosis c) Vomit with Blood d) Blood in stool/urine e) Nasal Bleeding f) Vaginal Bleeding g) Bleeding Gums

Other Symptoms:	Complications: Yes / No
a) Chills b) Nausea/Vomiting c) Diarrhea d) Cough e) Conjunctivitis f) Jaundice	If Yes, describe: **Other Clinical Findings:**

Report of other Investigations:	Filled by:
a) Platelet Count : b) Malaria Parasite : c) NS1 Antigen : d) Dengue ELISA : e) Other Investigations :	Name of Clinician: Designation: Signature with date: Contact no.

GeneXpert for TB Diagnosis

- All samples except blood, urine and stool
- Avoid sending specimens containing blood and No samples to be sent in formalin
- Requisition form filled in OPD 25.
- Specimen and test requisition form in duplicate to be brought to receiving counter of Microbiology dept, 3rd floor. Specimen containers available in OPD 25.

COVID- 19 Testing

- TRUENAT and CBNAAT is done at Central Lab, 4th floor OPD building.
- For TRUENAT, samples to be sent in VLM(available at TRUENAT Lab)
- For CBNAAT, samples to be sent in VTM(available in medical store)
- Samples to be sent with Duly filled ICMR forms
- For RTPCR, samples to be sent in VTM to TRUENAT Lab

ICMR Specimen Referral Form for COVID-19 (SARS-CoV2)

INTRODUCTION

This form is for collection centres/ labs to enter details of the samples being tested for Covid-19. It is mandatory to fill this form for each and every sample being tested. It is essential that the collection centres/ labs exercise caution to ensure that correct information is captured in the form.

INSTRUCTIONS:

- Inform the local / district / state health authorities, especially surveillance officer for further guidance
- Seek guidance on requirements for the clinical specimen collection and transport from nodal officer
- This form may be filled in and shared with the IDSP and forwarded to a lab where testing is planned
- Fields marked with asterisk (*) are mandatory to be filled

SECTION A – PATIENT DETAILS

A.1 TEST INITIATION DETAILS

*Doctor Prescription: Yes ☐ No ☐
(If yes, attach prescription; If No, test cannot be conducted)

*Follow up Sample: Yes ☐ No ☐
If Yes, Patient ID: .....

A.2 PERSONAL DETAILS

*Patient Name: .....

*Age: .... Years/Months ☐ age <1 yr, pls. tick months checkbox)

*Patient in quarantine facility: Yes ☐ No ☐

* Gender: Male ☐ Female ☐ Others ☐

*Present Village or Town: .....

*Mobile Number: ☐☐☐☐☐☐☐☐☐☐

*District of Present Residence:.....

*Mobile Number belongs to: Self ☐ Family ☐

*State of Present Residence:.....

*Nationality: .....

*Present patient address: .....

*Downloaded Aarogya Setu App: Yes ☐ No ☐

.....

(These fields to be filled for all patients including foreigners)

Pincode: ☐☐☐☐☐☐

Aadhar No. (For Indians): ☐☐☐☐☐☐☐☐☐☐☐☐

Passport No. (For Foreign Nationals): .....

*A.3 SPECIMEN INFORMATION FROM REFERRING AGENCY

*Specimen type Throat Swab ☐ Nasal Swab ☐ BAL ☐ ETA ☐ Nasopharyngeal swab ☐

*Collection date

*Sample ID (Label)

*A.4 PATIENT CATEGORY (PLEASE SELECT ONLY ONE)

A.4.1 Routine surveillance in containment zones and screening at points of entry

Cat 1: All symptomatic (ILI symptoms) cases including health care workers and frontline workers ☐

Cat 2: All asymptomatic direct and high-risk contacts (contacts in family and workplace, elderly ≥ 65 years of age, those with co-morbidities etc. ☐

Cat 3: All asymptomatic high-risk individuals ☐

A.4.2 Routine surveillance in non-containment areas

Cat 4: All symptomatic (ILI symptoms) individuals with history of international travel in the last 14 days ☐

Cat 5: All symptomatic (ILI symptoms) contacts of a laboratory confirmed case ☐

Cat 6: All symptomatic (ILI symptoms) health care workers / frontline workers involved in containment and mitigation activities ☐

Cat 7: All symptomatic ILI cases among returnees and migrants within 7 days of illness ☐

Cat 8: All asymptomatic high-risk contacts (contacts in family and workplace, elderly ≥ 65 years of age, those with co-morbidities etc. ☐

Please note

- Gram staining requires at least 30 minutes
- Culture & identification, antibiotic sensitivity report minimum 72 hours (3 days)
- Blood culture final report available in 6 days. Provisional report available after 48 hours. (If no growth, if growth will take time)


Thank
you

PRIMARY SAMPLE COLLECTION MANUAL

of

DEPARTMENT OF MICROBIOLOGY
B.Y.L.Nair Charitable Hospital
MUMBAI – 400 008

Issue No. : 4
Issue Date : 16/01/2023
Copy No. : 1
Holder's Name : Quality Manager

RELEASE AUTHORISATION

This Primary Sample Collection Manual is released under the authority of

DR. REENA SET

Professor & Head

Department of Microbiology

and is the property of

DEPARTMENT OF MICROBIOLOGY

B.Y.L. Nair Charitable Hospital

MUMBAI – 400 008

Reena Set

(Signature)

Dr. Reena Set

Professor & Head

Amendment Page

Sr. No.	Page No.	Date of amendment	Amendment made	Reason for amendment	Sign of the person authorizing amendment

List of Abbreviations

Abbreviations	Full Form
Ab	Antibody
ICTC	Integrated Counselling and Testing Centre
RA	Rheumatoid arthritis
RDT	Rapid Diagnostic Test
ASO	Anti-Streptolysin O
ELISA	Enzyme Linked Immunosorbent Assay
RDT	Rapid Diagnostic Test
RPR	Rapid Plasma Reagin
V.D.R. L	Venereal Disease Research Laboratory
PPE	Personal Protective Equipment
TAT	Turnaround time
PCR	Polymerase Chain Reaction
TPHA	Treponema Pallidum Hemagglutination Assay
PEP	Post Exposure Prophylaxis
MICU	Medical Intensive Care Unit
ART	Anti Retroviral Therapy
HAV	Hepatitis A Virus
HEV	Hepatitis E virus
HBV	Hepatitis B virus
HCV	Hepatitis C virus
RSTRRL	Regional STI RTI Research Laboratory
CBNAAT	Cartridge Based Nucleic Acid Amplification Test
VLM	Viral lysis medium
VTM	Viral transport medium
AMO	Assistant medical officer
°C	Degree Centigrade
cm	Centimeter
NTEP	National Tuberculosis Elimination programme

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I have read this manual and understood it completely and will implement it in toto

Sr. No.	Name of the Staff	Signature of staff with Date

INTRODUCTION

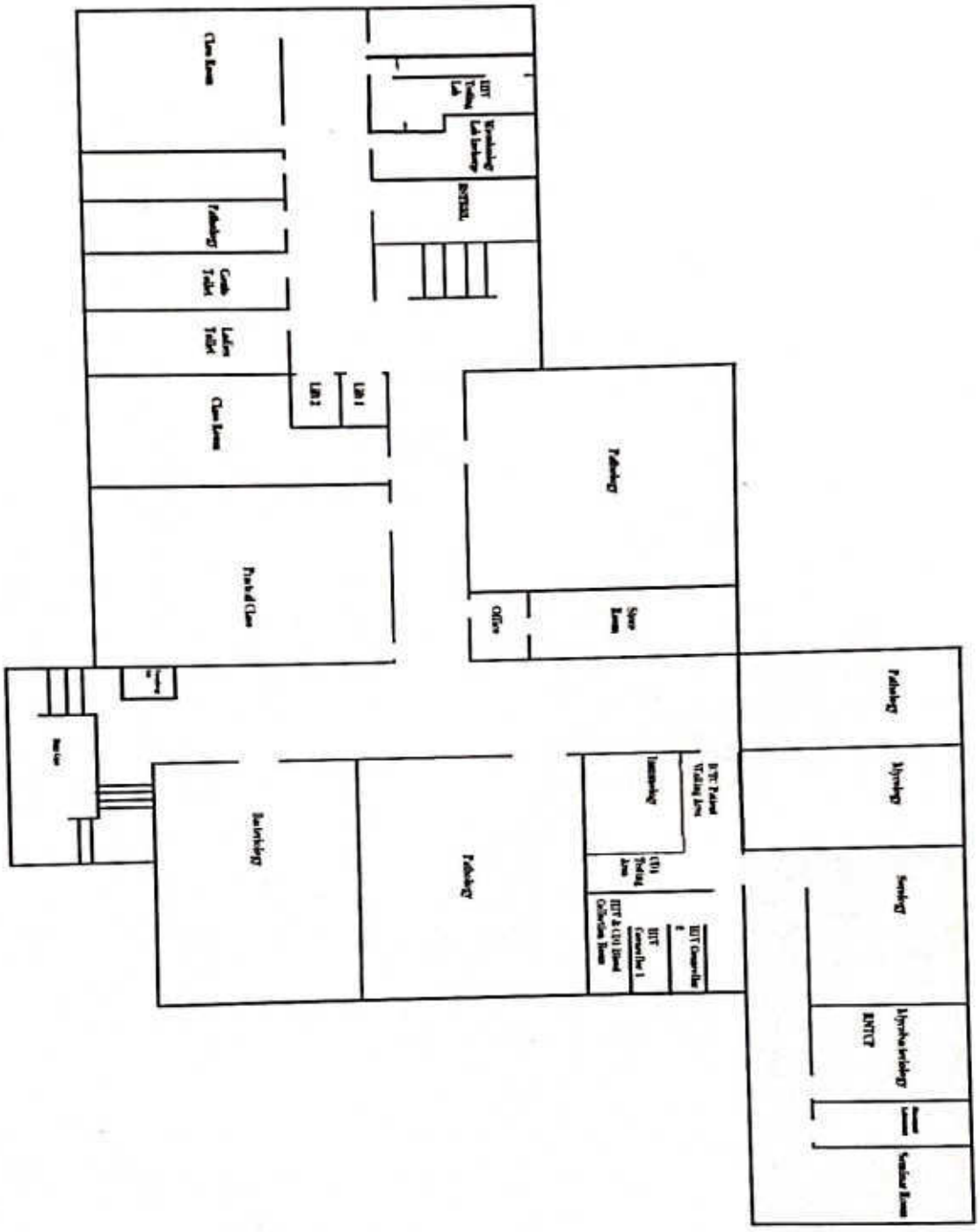
This manual is designed to give an overview of services available in the Microbiology Department. It is intended as a quick reference guide for all users. This manual is a controlled document as part of the Quality Management System. Recipients of this manual are requested to share this manual with all members of the department which includes interns, residents, registrars, nursing staff and teaching faculty.

A good quality specimen is an important pre-analytic criterion for the accuracy of a test result. This manual specifies the minimum requirements for the collection, labelling and transport of specimens and for the completion of request forms to ensure sufficient information is received for the requested service to be optimally delivered.

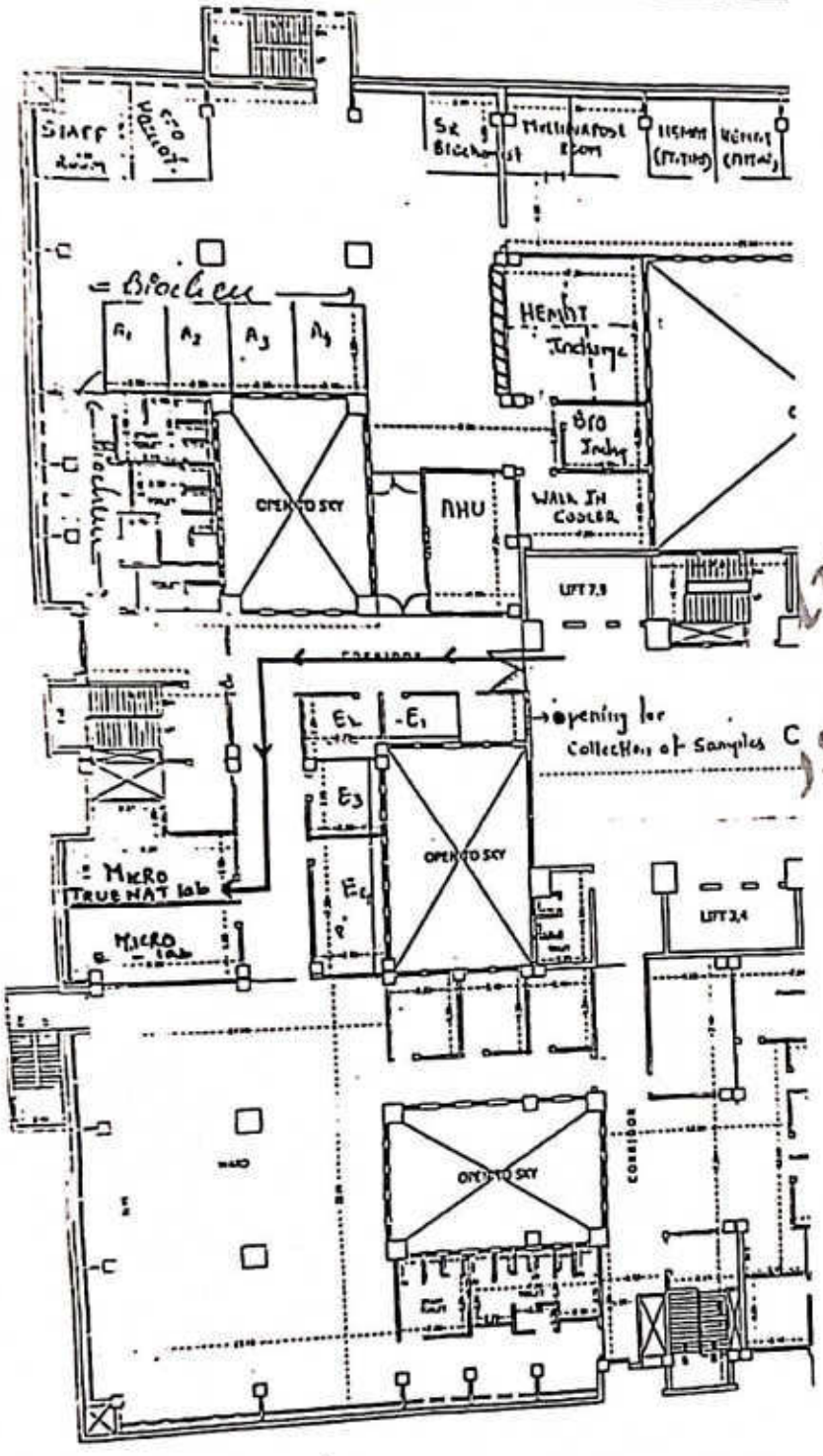
This manual is intended to provide the clinicians and the laboratory personnel alike, the instructions on what constitutes appropriate specimens, and where and how they need to be sent / transported.

The Department of Microbiology offers diagnostic services for infectious diseases through its different divisions viz Bacteriology, Mycobacteriology, Mycology, Parasitology, Serology, Molecular diagnostics and Immunology including ICTC. Apart from these divisions, the department also offers emergency laboratory services for processing specimens of emergency nature or from seriously ill patients. This laboratory is operational after routine hours. The records of specimen processed are maintained without affecting patient confidentiality by restricting access of these records to only laboratory staff.

LAYOUT OF THE DEPT OF MICROBIOLOGY



LAYOUT OF CENTRAL LABORATORY



QUALITY ASSURANCE

Services are provided using approved reagents and kits, calibrated equipments and controls, and trained and proficient manpower authorized by qualified microbiologists. External Quality Assessment and continual improvement programs are in place to assure the quality of the results generated.

SCOPE

This manual is meant for all those health care workers who are involved with specimen collection, labeling, transport, storage, handling and disposal.

PURPOSE

The purpose of this manual is to facilitate collection and transport of appropriate specimens in a manner that reduces the risk of exposure to blood and body fluids, maintains confidentiality as required and complies with standard collection protocols.

RESPONSIBILITY

All Health care workers

- Should follow the recommendations / procedures described in this manual
- In case a clarification is required, should contact the laboratory.
- Should follow standard precautions while collecting, handling and transporting specimens
- Ensure that appropriate specimen is collected in adequate quantity in appropriate containers which are labelled and transported along with an appropriately filled requisition form immediately to the laboratory

Biohazard spill should be attended to immediately. In the event of a needle stick injury, immediate action as per the protocol is indicated.

STANDARD PRECAUTIONS

- These precautions should be followed by all health care workers to prevent the transmission of infectious agents while providing health care which also includes specimen collection, handling and transport.
- All clinical specimens should be considered as potentially infectious.
- All cuts and dressings should be completely covered with impervious dressing.
- Appropriate personal protective equipment should be worn while performing collection as per expected exposure risk (e.g. a pair of clean gloves).
- Hands should be washed before and after a procedure irrespective of glove use.
- Where there is a risk of splash occurring, face shield and gown should be worn in addition.
- N95 respirators are recommended while collecting throat swabs from patients with infections that are transmitted by droplets such as suspected flu, diphtheria etc.
- N95 respirators are recommended to be worn while collecting specimen using a bronchoscope from patients with infections that are transmitted by droplet nuclei such as flu, tuberculosis.
- All spills of blood and body fluids should be decontaminated with an absorbent containing 1% sodium hypochlorite (freshly prepared) immediately.

LABORATORY WORKING HOURS

Routine working hours – All sections	Weekdays	9.00 a.m. to 4.00 p.m.
	Saturdays & Bank Holidays	9.00 a.m. to 12.30 p.m.
Emergency laboratory Services	Weekdays	4.00 p.m. to next day 8.00 a.m.
	Saturdays / Bank Holidays	12.30 p.m. to Sunday / Next working day 8.00 a.m.
	Sundays / O.P.D Holidays	8.00 a.m. to Monday / Next working day 8.00 a.m.
SARS-CoV-2 CBNAAT/TrueNat Testing Services	Weekdays	9.00 a.m. to 4.00 p.m.
	Saturdays & Bank Holidays	

SPECIMEN ACCEPTANCE TIMINGS

	Sections	Timings
OPD Patients	Serology	9.00 am to 4.00 pm
	Immunology	9.00 am to 12 noon
	RSTRRL	9.00 am to 4.00 pm
	Direct Walk In for HIV	9.00 am to 4.00 pm
	Parasitology	9.00 am to 3.00 pm
	Mycology	9.00 am to 3.00 pm
	Clinical Bacteriology	9.00 am to 4.00 pm – Body Fluids/Ocular specimens/Aspirated pus /Tissue /Stool for Cholera 9.00 am to 12 noon – Urine/Stool/Sputum
Indoor Patients	Serology	9.00 am to 3.00 pm
	Immunology	9.00 am to 3.00 pm
	ICTC	9.00 am to 4.00 pm
	Parasitology	9.00 am to 3.00 pm
	Mycology	9.00 am to 3.00 pm
	Clinical Bacteriology	9.00 am to 4.00 pm – Body Fluids/Ocular specimens/Aspirated pus /Tissue /Stool for Cholera 9.00 am to 12 noon – Urine/Stool/Sputum
Xpert MTB/RIF samples from all patients	Mycobacteriology	9.00 am to 12 pm
All specimens from PLHIV patients for Xpert MTB/RIF	Mycobacteriology	9.00 am to 3.30 pm
SARS-CoV-2 CBNAAT/Truenat Testing	Truenat Laboratory	9.00 am to 4.00 pm

TESTS / SERVICES OFFERED

Section/Location	Test Offered	Specimen Type *	Intercom No
ICTC 3rd floor, 311, College Building	HIV antibody test**	Blood Collected in Red /Gold top Vacutainer	7409
CD4 Laboratory 3rd floor, 311, College Building	CD4 test (for patients with requisition form from Nair ART Centre)	Blood Collected in Purple top Vacutainer	7409
Serology 3rd Floor, 311E, College Building	Widal RA ASO VDRL/RPR Rapid HBsAg/HCV (only for hemodialysis patients)	Blood Collected in Red/Gold top Vacutainer	7168
	Fever Profile (Rapid tests for leptospira IgM, Dengue NS1, Dengue IgM/IgG, Rapid Malaria Antigen)	Blood Collected in Red/Gold top and Purple top Vacutainer	7168
	Specimens referred for PCR test to PCR laboratory, Kasturba Hospital for Leptospirosis and Dengue	Blood Collected in Purple top Vacutainer***	7168
	Specimens referred for PCR test to PCR laboratory, Kasturba Hospital for H1N1	Nasal or Throat swab placed in VTM ***	7168
Immunology 3rd floor, 311A, College Building	ELISA for HBsAg, HCV, HAV, HEV, Chikungunya	Blood Collected in Red/Gold top Vacutainer	7168
RSTRRL 3rd floor, 305, College Building	RPR/VDRL/ TPHA/HBsAg/HCV of ART and STI/ RTI patients Gram staining (STI/RTI patients)	Blood Collected in Red/Gold top Vacutainer Sterile swabs and discharge	7151
Mycobacteriology 3rd floor, 311G, College Building	Xpert MTB/RIF	Sputum Bronchoalveolar lavage Gastric lavage Pus Aspirate Cerebrospinal fluid Ascitic/ Peritoneal Pleural fluid Pericardial fluid	23096293

		Synovial fluid Bone marrow Tissue / Biopsy	
Parasitology 3rd floor, 313, College Building	Saline and Iodine mount	Stool	7515
Mycology 3rd floor, 311C, College Building	KOH mount	Sputum Pus Hair Skin scrapping/ scales Nail Eye specimens (corneal scrape, corneal button, conjunctival scraping) Tissue / Biopsy	7168
Molecular Testing Laboratory Central Laboratory, 4th floor, OPD Building	SARS-CoV-2 CBNAAT/Truenat Testing ****	Nasal or Throat swab placed in VTM (for CBNAAT) and in VLM (for Truenat)	7688
Clinical Bacteriology 3rd floor, 313, College Building	Microscopy (Gram Staining, Albert staining as per request) & Culture for aerobic bacteria. Antimicrobial susceptibility test on clinically relevant aerobic bacteria	All specimens collected aseptically in sterile containers	7155
	BACTEC Aerobic plus for adults (as per availability)	Blood	7155
	BACTEC Peds plus for children/neonates (as per availability)	Blood	7155
	Microscopy and culture of anaerobic bacteria	Pus aspirate/ tissue collected aseptically in sterile containers in RCM	7155

- All specimen containers should be adequately labeled
- All specimens should be accompanied by adequately filled requisition forms.

* Details of the specimen collection will be provided in the section below.
**Specimen should be accompanied by written informed consent form.
***Specimen should be transported to the laboratory by maintaining cold chain.
**** Test available for the following categories of patients only:
Patients complying with the guidelines provided by the BYL Nair Hospital authority

1. Brought Dead
2. Symptomatic/Rapid antigen test negative
3. Emergency patients sanctioned by AMO on call

TEST INDICATIONS AND LIMITATIONS

Sr.no.	Specimen / test performed	Indications (major)	Limitations
SEROLOGY SECTION			
1.	RA Test for rheumatoid factors	In-vitro detection of Rheumatoid factor in patients serum by latex agglutination method.	-Does not provide definite diagnosis of rheumatoid arthritis and should always be correlated clinically -False positive results are seen in auto immune diseases, acute bacterial and viral diseases - Test can be negative in some patients with RA.
2	ASO test	Detection of antibodies to streptolysin O produced by group A beta hemolytic streptococci by latex agglutination method.	-All positive results should always be correlated clinically -Nonspecific results are seen in lipemic, hemolysed, contaminated and high protein content serum -False positive results are seen with the use of plasma instead of serum
3	RPR / VDRL Test	For detection and quantification of reagin antibody in serum/plasma and spinal fluid in syphilitic patients.	-Nonspecific test for syphilis -All positive results should be correlated clinically -All positive samples should be confirmed by TPHA or FTA ABS -False Negative: early primary syphilis; in secondary syphilis because of prozone reaction; and in some cases of late syphilis. -Biological false positive occurs in conditions such as - infectious mononucleosis, viral, pneumonia, malaria, lepromatous leprosy, pregnancy, collagen disease, other autoimmune diseases.
4	Widal Test	Detection of typhoid fever or paratyphoid fever by agglutination method.	-Not a specific (65%) or sensitive test (65%) -All reactive titres should be correlated clinically - TAB vaccinated patients may show high titres
5	Leptospira IgM rapid	Qualitative detection of IgM class of Leptospira specific antibodies in human serum/ plasma/whole blood by rapid immunochromatography method.	- Less specific than ELISA -All positive results should always be correlated clinically -Samples collected during early stage of disease (0-7days) may yield negative results -Positive results of rapid tests to be confirmed by ELISA.

6	Dengue NS1 - Rapid	Qualitative detection of non-structural protein 1 (NS1) of dengue virus in serum/plasma by rapid immunochromatography method	-Samples collected during late stage of disease (after 7 - 9 days of fever) may yield negative results - Positive results of rapid tests to be confirmed by ELISA.
7	Dengue IgG/IgM Rapid	Qualitative detection of IgG or IgM class of antibodies against dengue virus in human serum/ plasma by rapid immunochromatography method	- Not as specific or sensitive as ELISA -All positive results should always be correlated clinically -Samples collected during early stage of disease (0-7days) may yield negative results -Positive results of rapid tests to be confirmed by ELISA.
8	Malaria antigen rapid Test	Clinically suspected malaria cases	- Detection limit is usually 200 parasites /µl - May not detect low level parasitemia. -Use of RDT does not eliminate the need for malaria microscopy. -The currently approved RDT detects2 different malaria antigens; one is specific for P. falciparum and the other is found in all 4 human species of malaria. Thus, microscopy is needed to determine the species of malaria other than P.falciparum.
9	Rapid HBsAg	For patients posted for hemodialysis on emergency basis	Not as specific or sensitive as ELISA -All positive results should always be correlated clinically - Positive results of rapid tests to be confirmed by ELISA.
10	Rapid HCV antibody tests	For patients posted for hemodialysis on emergency basis	Not as specific or sensitive as ELISA -All positive results should always be correlated clinically - Positive results of rapid tests to be confirmed by ELISA.
IMMUNOLOGY DIVISION			
9	HBsAg ELISA	Signs/symptoms suggestive of hepatitis	-False Negative: in window period -False positive: due to presence of other antigens or elevated levels of Rheumatoid factor
10	Anti HCV ELISA	Signs/symptom suggestive of hepatitis	-False Negative: in window period -False positive: elevated levels of Rheumatoid factor

			-Cannot differentiate recent from past infection
11	IgM HAV ELISA	Signs/symptom suggestive of hepatitis	-False Negative: in window period -False positive: elevated levels of Rheumatoid factor
12	IgM HEV ELISA	Signs/symptom suggestive of hepatitis	-False Negative: in window period -False positive: elevated levels of Rheumatoid factor
13	IgM Chikungunya ELISA	Signs/symptom suggestive of Chikungunya	-False Negative: in window period -False positive: elevated levels of Rheumatoid factor
ICTC			
14	HIV Antibody tests (Rapid)	-Patients who present with symptoms suggestive of HIV infection. Examples pneumonia, TB or persistent diarrhea - Patients with conditions that could be associated with HIV such as STI/RTI. - -Prevention of parent (mother) to child transmission – pregnant women who register at ANCs. These also include pregnant women who directly come in labour without any antenatal check- up	-False Negative result: in window period & terminal stage of HIV disease -False positive result: autoimmune disease, multiple blood transfusion, pregnancy etc.
15	CD4 count	-HIV positive patients referred from the ART centre	-Nonspecific marker which can be affected by many other conditions
RSTRRL			
16	HBsAg ELISA	HIV positive patients referred from the ART centre	-False Negative: in window period - False positive: due to presence of other antigens or elevated levels of Rheumatoid factor
17	Anti HCV ELISA	HIV positive patients referred from the ART centre	-False Negative: in window period -False positive: elevated levels of Rheumatoid factor
18	RPR/VDRL/ TPHA Test	For detection and quantification of reagin antibody in serum of STI/RTI and ART patients	-Nonspecific test for syphilis - All positive results should be correlated clinically -All positive samples should be confirmed by TPHA or FTA ABS - False Negative: early primary syphilis; in secondary syphilis

			because of prozone reaction; and in some cases of late syphilis. -Biological false positive occurs in conditions such as - infectious mononucleosis, viral 4pneumonia, malaria, lepromatous leprosy, pregnancy, collagen disease, other autoimmune diseases
19	Gram staining	For diagnosis of STI / RTIs	-
MYCOBACTERIOLOGY			
20	Xpert MTB/RIF	For diagnosis of tuberculosis & rifampicin resistance	Negative if specimen has < 131 CFU/ml of mycobacterium tuberculosis
MYCOLOGY			
21	KOH Mount	For diagnosis of suspected superficial or deep fungal infection	The sensitivity of a KOH preparation is relatively low (20-75%) The test may require overnight incubation for complete disintegration of thicker specimens like hair, nail or biopsy.
PARASITOLOGY			
22	Saline and Iodine Mount	For diagnosis of stool parasites	-
SARS-CoV-2 MOLECULAR TESTING			
23	CBNAAT/ Truenat Testing for SARS-CoV-2	For diagnosis of COVID-19 infection	The sensitivity of both tests depends upon proper sample collection, maintenance of cold chain (for CBNAAT)
CLINICAL BACTERIOLOGY			
24	**Blood Culture (conventional)** Aerobic culture & Antimicrobial susceptibility test	Catheter Related Blood Stream Infection(CRBSI), Enteric fever, Infection of prosthetic material (implants), Infective endocarditis (IE), Meningitis, Osteomyelitis Pneumonia, PUO, Septicemia	Less volumes (<10-20 ml) decrease yield. Usually positive only in acute phase. Multiple specimens required in Infective Endocarditis. Contamination during collection can lead to pseudobacteremia.
25	**Blood culture (Automated method BACTEC) Rapid aerobic bacterial culture by automated system**	Same as above If patient on antimicrobial, collect just before the next dose is due.	Pre-incubation of automated blood cultures reduces the yield of Pseudomonas, Streptococcus and Candida spp. In case of delay, store at room temperature (20-30°C)

26	**Sterile body fluids** Smear, Culture and Antimicrobial susceptibility test C.S.F, Pleural, Pericardial, Peritoneal Ascitic, Synovial	Infection at respective sites	Negative microscopy or culture does not rule out disease. Larger volumes improve sensitivity.
27	**Throat swab from suspected diphtheria case** Smear examination by microscopy for Diphtheria Culture on appropriate media	Suspected diphtheria	Microscopy – unreliable A positive culture followed by demonstration of exotoxin production is the gold standard
28	**Sputum** Smear, Culture and Antimicrobial susceptibility test	Lower Respiratory tract infections, community / hospital acquired	Both sensitivity and specificity are considered </= 50% unless expectorated sputum is purulent.
29	**Respiratory samples** (mini BAL, BAL, endotracheal aspirate) Smear, Culture and Antimicrobial susceptibility test	Lower Respiratory tract infections, community / hospital acquired Counts >/= 10^4 cfu/ml correlates better with disease though not always	Difficult to distinguish colonization from infection even with quantitative cultures. Clinical correlation essential.
30	**Miscellaneous** (Pharyngeal swabs, Skin scrapings) Smear, Culture and Antimicrobial susceptibility test	Suspected streptococcal pharyngitis, Localized skin infections	Collect samples in suspected Group A streptococcal infection patients from posterior pharyngeal wall and tonsils. The isolate needs to be clinically correlated for its significance as a colonizer / pathogen. Swabs need to be transported to lab immediately. A dried swab is detrimental to growth and can give false negative results.
31	**Ocular specimens** (conjunctival swab, Corneal scrapings, corneal button, eye discharge,	Conjunctivitis, corneal transplant, corneal ulcer, other eye infections trachoma,	Negative microscopy or culture does not rule out disease. Bedside inoculation on appropriate media improves yield provided aseptic practices are followed.

	vitreous humor, cornea) Smear, Culture and Antimicrobial susceptibility test		
32	**Pus** Smear, Culture and Antimicrobial susceptibility test	Localised skin or organ specific	Aspirated pus sample to be sent in sterile container. Sample sent in syringe will not be accepted. Sensitivity – 70% Specificity - High
33	**Wound swab** Smear examination by microscopy	Bacterial cellulitis, gas gangrene	Swab specimen is inappropriate and hence Microscopy and culture unreliable. Collect tissue material or purulent discharge whenever possible in Robertson Cooked Meat Medium(RCM).
34	**Tissue** (other appropriate specimen) for gas gangrene Smear and Culture (anaerobic)	Gas gangrene, local infection, intra-operative	Specimen to be collected in RCM to enhance the recovery of anaerobes. Gas gangrene is a clinical diagnosis. Microscopy cannot characterize the genus. A negative test does not rule out disease.
35	**Specimens from female genital tract** (Vaginal /cervical swab, Urethral discharge, product of conception) and urethral discharge Smear, Culture and Antimicrobial susceptibility test	Vaginitis, cervicitis, urethritis	Specimens from lower genital tract will be contaminated with normal flora and difficult to interpret.
36	**Stool Microscopy** – Hanging Drop	Diarrhoea, purulent enterocolitis	A negative test for darting motility does not rule out cholera (sensitivity and specificity ~ 60%)
37	**Stool Culture & Antimicrobial susceptibility test**	Diarrhoea, dysentery, purulent enterocolitis	Necessary to process specimens immediately to prevent overgrowth by normal flora.
38	**Urine Smear, culture & Antimicrobial susceptibility test**	Recurrent / Complicated UTI Known UTI with treatment failure PUO Asymptomatic bacteriuria in pregnant women	-False positives with clean catch urine specimens is high since the urine sample passes through the distal urethra and can become contaminated with commensal bacteria.

			-For catheterized patients, urine sample to be sent from catheter and not from the urine bag as it gives false positive result. -Culture positive urine in a sick patient does not exclude another site of serious infection. -Prior antibiotic therapy may lead to negative urine culture in patients with UTI. -Sterile pyuria may be due to causes other than non-fastidious aerobic bacteria.
REFERRAL OF SPECIMENS			
24	Lepto PCR	Suspected leptospirosis, 1st week, antibody negative	A negative test does not rule out disease. A positive test to be correlated clinically and with other microbiological tests. Best results when specimens tested the same day of collection. Transport in cold chain.
25	Dengue PCR	Suspected Dengue, 1st week, NS1 Ag and IgM Ab negative	Same as above. Does not speciate.
26	Throat / nasal swab for H1N1 influenza	Category 'C' - Patients with Influenza like illness requiring admission / admitted	Positivity is very high early in the course of disease (upto 5 days). Not recommended as a test for monitoring disease. Processing the specimen within 24 hours of collection improves yield

SPECIMEN COLLECTION

A. General Instructions and Pre-collection activities

- Confirm the identity of the patient
- Explain the procedure to the patient and obtain consent as appropriate
- For HIV antibody test, provide pretest counseling and obtain written informed consent in the requisition form for HIV testing (APPENDIX 2)
- Wear appropriate PPE
- Prepare patient as required for collection
- Collect the specimen aseptically
- Label the specimen with date, name, registration number, ward, unit, specimen and the test requested

- Fill the requisition form completely, legibly and sign before transporting to the laboratory. The minimum details required in the requisition form would include name, age, gender, ward, unit, specimen, date of collection, time of collection where applicable, site from where the specimen is collected (where applicable), presumptive diagnosis, nature of investigation required. Complete residential address in cases of suspected typhoid, leptospirosis, dengue and suspected malaria should be provided.
- After collection, keep the specimen in upright position
- If outside of the container is contaminated while collection, decontaminate with 70 % alcohol or 1% sodium hypochlorite.
- Remove PPE and discard in the appropriate bags.
- Wash hands and dry with a clean towel or use an alcoholic hand rub
- If during collection / handling / transport of specimen container breaks, evacuate adjacent area, inform incharge, place large absorbent immediately and instruct the labour staff to immediately follow spill control.
- Specimens which do not follow acceptance criteria will be rejected

Note – The type of specimen required, their quantity for the various investigations carried out in different sections and their turnaround time are mentioned at the end of manual. (APPENDIX 1)

- NO ADDITIONAL INVESTIGATIONS will be performed from the specimen received for a particular investigation
- Specimen will not be stored for any investigation beyond a specified retention time.
- No verbal request will be entertained for testing

DISPOSAL OF WASTE GENERATED

- Segregate waste into appropriate colour coded bags / container
- All blood soaked non plastic items in yellow bags, all infected plastics in red bags and all sharps in sharp disposal container.
- Do not separate needle and syringe assembly. Discard the syringes and needle in sharp container.
- The red and yellow bags and the sharps cans should be tied, labeled, entered in log book and sent to biomedical waste storage room.

SPECIAL SITUATIONS - HIV ANTIBODY DETECTION AND CD4 COUNT ENUMERATION

- Patients / Direct Walk-in clients whose HIV status needs to be determined, go through the process of pretest counseling, informed written consent, blood collection, testing and post test counseling
- HIV counseling is provided for direct walk-in clients and OPD patients. Once informed consent is obtained, blood samples are collected for HIV testing.
- For indoor patients, an appropriately collected sample should be sent with a properly filled requisition cum consent form for HIV testing
- For CD4 count enumeration, only patients referred by the ART centre are tested. Clinician should refer HIV positive patients under their care to ART centre who after registration at the ART will be referred to ICTC for blood collection and testing.
- No sample will be accepted without a completely filled requisition form (APPENDIX 2) The requisition cum consent form for HIV testing should mention the date and time of collection, name, ward, unit, registration number, age, gender, occupation and relevant clinical details for testing and should be duly signed by the clinician.
- Ensure that informed written consent is taken after pretest counseling for HIV testing.
- Pre and post test counseling is mandatory for all patients undergoing HIV testing. For indoor patients, it can be carried out by trained resident doctors, staff nurses, medical social workers etc. Only if the patient is willing for testing, his or her blood should be collected.
- In case of minors, the consent should be obtained from the parent or guardians.
- In case of unconscious patients, where there is a need for diagnosis of HIV for management of the patient, consent should be obtained from the parents / spouse / closest relative available at that time.
- In case no attendant is available, the test if necessary for management may be carried out on recommendation of two attending doctors.

SPECIMEN COLLECTION

A. BLOOD – (FOR SEROLOGY, IMMUNOLOGY AND REFERRAL MOLECULAR DIAGNOSTICS)

- All OPD patients to be directed to OPD 16 for blood collection
- Indoor patients blood collection to be performed by well trained person (Lab technician / doctors / nurses)
- Requirement – Gather material required for collection and biomedical waste disposal. This includes - identified patient, tourniquet, alcohol wipes, sterile syringe and needle (21 G preferably) or appropriate vacutainer sets, cotton balls, gloves, alcoholic hand rub solution, collection container – preferably prelabelled vacutainer tubes - red cap or plain blood or purple cap or EDTA, needle and syringe destroyer, sharp cans requisition forms, red nag and yellow bag.
- If multiple collections are done using the same gloves, and if the gloves are visibly clean, the same pair of gloves can be used provided the gloves are disinfected after every collection using 70 % alcohol / alcoholic hand rub.
- In case there is contamination with blood, gloves should be removed immediately and discarded in the red bag and replaced with a new pair of plastic and latex gloves.

Procedure

- Help the patient sit comfortably on a chair with an armrest or lie down on a bed or couch.
- Use alcoholic hand rub to disinfect your hands
- Wear plastic and clean latex gloves. Also wear a plastic apron if required.
- Place absorbent material (cotton / guaze piece) below the patients elbow to avoid soiling due to leakage.
- Inform the patient about the collection and discomfort that is likely to be felt (a small prick like or like an insect bite)
- Pre label the collection device with the name, registration number, ward, unit specimen, type of investigation requested and date and time of specimen collection.
- Tie the tourniquet above the site of blood collection to make the vein prominent (this is usually above the patients anterior cubital fossa of the forearm)

- Instruct the patient to clench his or her fist while collection is on
- Disinfect the site of collection with an alcohol swab (clinical spirit, 70 % ethyl or isopropyl alcohol)
- After use, discard the alcohol swab in yellow bag.
- Take a new sterile needle (preferable 21 G for an adult and 22 G for a child) and syringe / vacutainer set in front of the patient. The needle is attached to the syringe.
- Discard the paper or plastic cover of the syringe and needle in the black bag.
- Insert the needle aseptically in the vein at an angle of 45 degrees.
- Allow the blood to flow and collect 3-5 ml / as per vacutainer capacity.
- Release the tourniquet
- Tell the patient to release the clenched fist.
- Withdraw the needle slowly and place a dry cotton swab at the puncture site.
- Ask the patient to keep the elbow flexed until blood flow stops (usually 2-5 min)
- If syringe has been used, transfer the blood gently along the wall without squirting into appropriate prelabelled collection container.
- Discard the syringe with the attached needle in the designated sharp can.
- Wipe any blood using cotton soaked in 70 % alcohol and discard in yellow bag.
- Any used cotton / gauze should be discarded in yellow bag.

B. SPECIMENS FOR GRAM STAINING – RSTRRL

Specimen Type	Method of collection
Urethral swab	Should be done after at least one hour of voiding urine. Express urethral exudes when patient has urethral discharge, collect with sterile swab. If there is no discharge, compress the meatus vertically to open the distal urethra and insert a thin, water moistened swab (calcium alginate or dacron) with flexible wire slowly (3 cm to 4 cm in males or 1 cm to 2 cm in females), rotate slowly and withdraw gently.
Epididymis	Use a needle and syringe to aspirate material from epididymis and collect in a tube
Cervical swab / cervical discharge	Insert a speculum into the vagina to view the cervix. Wipe the cervix. Clean vaginal secretions and mucus. Insert the swab 1 cm to 3 cm into the endocervical canal and rotate for 10 sec to 30 sec to allow absorption of exudates. In cases of suspected coinfections of N. gonorrhea and Chlamydia trachomatis, the cervical specimen for N. gonorrhea should be

	taken before the specimen for Chlamydia trachomatis, because gonorrheae is present in the mucus from endocervix and Chlamydia trachomatis is present in the cervical epithelial cells. A small brush on a wire (cytobrush) is used to collect specimen in females in cases of Chlamydia trachomatis infection.
Vaginal Swab/ Discharge	Collect pooled vaginal secretions, if present. Vaginal wash specimens are most preferred from prepubertal girls. If not possible rub a sterile cotton swab against the posterior vaginal wall and allow the swab to absorb the specimens.

C. SPECIMENS FOR XPERT MTB/RIF TEST IN MYCOBACTERIOLOGY

Patient to be instructed to go to TB OPD 25 C for NTEP form (Appendix 8) and 50 ml screw capped tubes.

Sr. No.	Specimen	Method of collection	Instructions to patient / Other comments
1	Sputum	Sputum specimens early morning of 4-5ml each should be collected in two screwcapped 50 ml sterile container. Patient should expectorate into a sterile wide mouth container, preferably before start of antibiotic therapy **Induced sputum –** Patients who are unable to produce sputum may be assisted by respiratory therapy technician.	Food and tobacco should not have been ingested for 1-2 h prior to expectoration The mouth should be rinsed with saline or water Patient should breathe and cough deeply.
2	Gastric lavage	Specimens of 4-5 ml to be collected on the same day in two 50 ml sterile screw capped container.	It is collected from patients who are unable to produce sputum, particularly young children It should be delivered to the lab immediately
3	Bronchoalveolar lavage	Two specimens of 4-5 ml is to be sent to the laboratory in 50 ml sterile screw capped container	Bronchoalveolar lavage specimen should be sent to lab as soon as possible.
4	Pus / Abscess aspirate	Before a representative sample is collected, any contaminating materials such as slough, necrotic tissue, dried exudate and dressing residue should be removed by cleansing the wound with	For closed space abscesses – Decontaminate skin – Insert needle and aspirate or aspirate pus after incision For open wounds – Remove superficial

		sterile water, sterile saline or debridement Two aspirates should be collected in a 50 ml sterile screw capped container	exudate – Aspirate through margin Transport immediately to the laboratory
5	Cerebrospinal fluid	Two specimens 2-5ml each in 50 ml sterile container	Should be transported to the laboratory immediately.
6	Other sterile fluids (Ascitic, Pleural, Peritoneal, Pericardial, Synovial)	Two specimens 3-5ml each in 50 ml sterile screw capped tube	Should be transported to the laboratory immediately.
7	Bone marrow	Two specimens 3-5ml each is to be collected aseptically and send to the laboratory in 50 ml sterile screw capped container	Should be transported to the laboratory immediately.
8	Tissue / Biopsy	Two specimens of Lymph node & other tissues/biopsy should be sent in a sterile screw capped container	Tissue has to be cut into pieces with sterile scalpel blade in the lab before culturing
9	Fine needle aspirates	Two specimens of Lymph node & other tissues should be sent normal saline in a 50 ml sterile screw capped container	

D. SPECIMENS FOR MYCOLOGY

Samples will be accepted in only this test requisition form (Appendix 9)

Sr. No.	Specimen	Method of collection	Instructions to patient / Other comments
1	Sputum	Sputum specimens early morning after rinsing mouth with plain water of 2-5 ml each should be collected in screw capped sterile container. Patient should expectorate into a sterile wide mouth container, preferably before start of antibiotic therapy **Induced sputum –** Patients who are unable to produce sputum may be assisted by respiratory therapy technician.	Food and tobacco should not have been ingested for 1-2 h prior to expectoration The mouth should be rinsed with saline or water Patient should breathe and cough deeply

2	Skin scrapping	Collect skin scrapping in Petri dish, filter paper/clean paper or test tube. Identify the site of lesion where collection is to be made. Inform the patient about the procedure. Collect specimen with strict aseptic precaution. Make patient sit comfortably, clean the identified lesion thoroughly with 70% alcohol to remove the surface bacterial contamination using sterile scalpel blade. Collect multiple scrapings from the identified lesion preferably from the edge of lesion including the adjacent healthy skin.	Transport the sample as soon as possible
3	Nail	Clean the affected nail with spirit. Collect debris under the nail with scalpel in Petri dish. Pick up flakes after wetting loop with sterile saline from Petri dish for processing. If nail is avulsed then it should be cut in small pieces for processing.	Transport the sample as soon as possible
4	Hair	Hair should be collected from area of scaling or alopecia. Clean the affected area with spirit. With sterilised forceps, pluck hair or stub (at least 10-12) in grey patch or scrape with scalpel in black dot type of hair infection	Transport the sample as soon as possible
5	Skin biopsy/ tissue	Decontaminate skin with 70% methylated spirit. Select the edge of lesion, take a biopsy with sterile instrument with all aseptic precautions. Cut biopsy / tissue in small pieces and send in sterile container or Petri dish.	Transport the sample as soon as possible

6	Ophthalmic specimen (corneal scrape, corneal button, conjunctival scraping)	It should be collected by ophthalmologist. After anaesthetizing the eye with local anaesthesia, retract the lid with retractor. Using the blunt edge of sterile scalpel blade, scrape the ulcerated area away from pupillary area. Wipe the scrapings on sterile swab stick and place on glass slide for KOH mount.	Transport the sample as soon as possible
7	Mycetoma granules	From suspected mycetoma, look for granules in the lesion using hand lens. Wash the granules in several changes of sterile distilled water. Crush the granules on a clean slide and send to laboratory.	Transport the sample as soon as possible
8	Pus	Collect pus sample through aspiration through sterile needle and syringe where possible. Transfer a portion (1-2ml) to a screw capped sterile container/ test-tube.	Transport the sample as soon as possible

E. SPECIMENS FOR PARASITOLOGY

Samples will be accepted in only this test requisition form (Appendix 9)

Sr. No.	Specimen	Method of collection	Instructions to patient / Other comments
1	Stool	Collect one teaspoonful of fresh stool specimen in a sterile wide mouth container.	Should be transported to the laboratory immediately.

F. SPECIMEN FOR SARS COV-2 TRUENAT TESTING

1. Wear personal protective equipment (PPE)
2. From the **Trueprep AUTO Transport Medium for Swab Specimen Pack** pick up the transport medium for swab specimen tube and label it with patient details
3. Collect **Oropharyngeal/Nasopharyngeal** swab specimen as per standard procedures using a standard nylon flocked swab as mentioned below

4. Collect a nasopharyngeal swab specimen by inserting the sterile swab into the nostril.
5. Push the sterile swab until resistance is met at the level of the turbinate.
6. Rotate the sterile swab several times against the nasopharyngeal wall & leave in the place for 10 seconds to saturate the swab tip.
7. Remove the swab from the nostril carefully.
8. To collect an oropharyngeal swab insert the swab into the posterior pharynx and tonsillar areas.
9. Rub swab over both tonsillar pillars and posterior oropharynx and avoid touching the tongue, teeth, and gums.
10. Place both the swab specimen into the VLM
11. Collect One nasopharyngeal/oropharyngeal swab using the customized sample collection swab provided with the kit and put both of the swabs in one VLM
12. Insert the swab with specimen in the **Transport Medium for Swab Specimen Tube** and mix well by repeatedly twirling the swab in the buffer solution
13. Gently break the handle of the nylon swab at the break point, leaving the swab containing the specimen in the **Transport Medium for Swab Specimen Tube**
14. Discard the remaining part of the swab in red bag
15. Tightly close the cap of the Transport Medium for Swab Specimen Tube.

G. SPECIMEN FOR SARS COV-2 CBNAAT TESTING

1. Wear personal protective equipment.
2. Inadequate specimen collection, improper specimen handling and/or transport may yield a false result. Nasopharyngeal, nasal, and mid-turbinate swab specimens can be stored at room temperature (15–30 °C) for up to 8 hours and refrigerated (2–8 °C) up to seven days until testing is performed on the GeneXpert Xpress System.
3. Nasopharyngeal Swab Collection Procedure

- Insert the swab into either nostril, passing it into the posterior nasopharynx (see Figure 1). Rotate swab by firmly brushing against the nasopharynx several times.

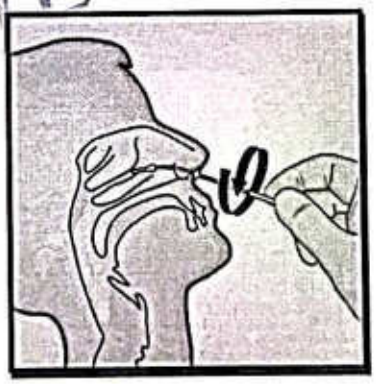
4. Nasal Swab Collection Procedure

- Insert a nasal swab 1 to 1.5 cm into a nostril. Rotate the swab against the inside of the nostril for 3 seconds while applying pressure with a finger to the outside of the nostril (see Figure 2).

- Repeat on the other nostril with the same swab, using external pressure on the outside of the other nostril. To avoid specimen contamination, do not touch the swab tip to anything other than the inside of the nostril.

5. Mid-Turbinate Swab Collection Procedure

- Insert the mid-turbinate swab into either nostril, passing it into the mid-turbinate area (see Figure 4). Rotate swab by firmly brushing against the mid-turbinate area several times.



6. Remove and place the swab (whether nasopharyngeal/nasal/midturbinate)into the tube containing 3 mL of viral transport medium (VTM). Break swab at the indicated break line and cap the specimen collection tube tightly.
7. Discard the remaining part of the swab in puncture proof container

H. SPECIMENS FOR CLINICAL BACTERIOLOGY

Container used for collection of specimens

Automated blood culture bottle	
Conventional pediatric blood culture bottle	
Conventional adult blood culture bottle	
Sterile wide mouth container used for collection of urine, sputum, stool, Body fluid etc	

Sterile Swab stick	

a) **BLOOD – FOR CULTURE [AEROBIC / FUNGAL]**

Responsibility – Clinician /Phlebotomist

- Blood collection is performed only by well-trained experienced phlebotomists (Laboratory technicians / Doctors).
- Collect blood during fever / spike phase
- **Collect 7-10 ml in adults, 3-5 ml in children and 1-2 ml in neonates.**
- **Number of specimens** - Collect twice from two different sites within an hour of each other or two specimens over 24 hrs
- Requirements – Gather material required for collection and biomedical waste disposal.
- This includes – Identified patient, Tourniquet, Alcohol wipes, Betadine solution, Sterile syringe and needle (21 G preferably) or appropriate vacutainer sets, cotton ball, gloves, alcoholic hand rub solution, **container - blood culture bottle with appropriate medium** [large (100 ml) for adults and small McCartney bottles for children / BACTEC aerobic plus and BACTEC Peds plus] brought to room temperature if refrigerated and with the top disinfected with alcohol wipes , prelabeled , needle and syringe destroyers, sharps can, requisition form, red bag and yellow bag.

Procedure

- Follow instructions as mentioned under collection of blood with the following modifications.
- Labeling - Pre label the blood culture bottle with the name, registration number, unit, specimen, type of investigation requested and the date and time of specimen collection.

- Site disinfection - Disinfect the site of collection [patient's] with an alcohol swab [clinical spirit, 70% ethyl or isopropyl alcohol]. After use, discard the alcohol swab in the yellow bag.
- Follow this with disinfection with alcoholic chlorhexidine (preferred)/povidone iodine in a circular motion beginning from centre and moving out. Allow to dry. Discard the cotton swab in yellow bag.
- Take a new sterile needle [preferably 21 G for an adult and 22 G for a child] and syringe / vacutainer needle with holder in front of the patient. The needle is attached to the syringe / vacutainer needle after insertion is inserted into the blood culture bottle.
- **Collect adequate volume**
- Transfer the blood gently and aseptically into the blood culture bottle along the wall without squirting. Mix the contents well by placing on a horizontal surface.
- Wipe any blood spill using cotton soaked in 1% sodium hypochlorite and discard in yellow bag.
- Send the specimen immediately to laboratory.

b) **BODY FLUIDS FOR CULTURE**

(Ascitic / peritoneal fluid, pleural fluid, pericardial fluid, synovial fluid etc.)

Responsibility: Clinician

- Disinfect the site of collection using alcoholic chlorhexidine / povidone iodine
- Wait for it to dry
- Inform the patient of the procedure
- Using aspetic precautions, collect in a screw capped container available for the same which is labeled appropriately
- Collect 2-5 ml where possible
- Transport immediately to laboratory
- In case of delay in transport, store at room temperature only. Do not refrigerate.

c) CSF FOR CULTURE

Responsibility: Clinician

General instructions:

The collection of CSF is an invasive technique and should be performed by experienced clinician under aseptic conditions

- It is unsafe to do lumbar puncture in case of increased intracranial pressure
- LP should not be performed through infected skin as organisms can be introduced into the subarachnoid space (SAS)
- Clinician should explain the procedure to patient / relative if patient comatose in detail
- **The container should be sterile, screw capped** (available from general stores) labeled appropriately [see general instructions]. **DO NOT COLLECT IN PENICILLIN BULBS SINCE THEIR STERILITY IS NOT MAINTAINED.**
- Labeling – as in 'blood'
- Usually, 3 tubes of CSF are collected for biochemistry, microbiology, and cytology.
- If only one tube of fluid is available, it should be given to the microbiology laboratory
- If more than one tube (1 ml each) is available, the second or third tube should go to the microbiology laboratory
- Avoid exposure of CSF to excessive cold, heat or sunlight
- IN CASE OF DELAY IN TRANSPORT TO LAB AFTER COLLECTION, STORE AT ROOM TEMPERATURE OR IN INCUBATOR ONLY. DO NOT REFRIGERATE.

Requirements: The kit for collection of CSF should contain:

- Skin disinfectant
- Sterile gauze and Band-Aid
- Lumbar puncture needles: 22 gauge/3.5"for adults;
- 23 gauge/2.5" for children
- Sterile screw-cap tubes
- Sterile screw capped tubes
- Sterile gloves

Steps

- **Analgesia – as recommended**
- **Positioning**
- Position the patient at the edge of a firm bed and on one side rolled up into a ball.
- The neck is gently ante-flexed and the thighs pulled up toward the abdomen; the shoulders and pelvis should be vertically aligned without forward or backward tilt
- LP is performed at or below the L3-L4 interspace.
- An alternative to the lateral recumbent position is the seated position. The patient sits at the side of the bed, with feet supported on a chair. The patient is instructed to curl forward, trying to touch the nose to the umbilicus.
- A disadvantage of the seated position is that measurement of opening pressure may not be accurate.

Procedure

- Perform hand hygiene and wear sterile latex gloves
- Disinfect the skin with povidone-iodine or similar disinfectant and drape the area with a sterile cloth
- Inject local anaesthetic as recommended.
- Wait for 5-15 minutes
- The LP needle (typically 20- to 22-gauge) is inserted in the midline, midway between two spinous processes, and slowly advanced. The bevel of the needle should be maintained in a horizontal position, parallel to the direction of the dural fibres and with the flat portion of the bevel pointed upward; this minimizes injury to the fibres as the dura is penetrated.
- When lumbar puncture is performed in patients who are sitting, the bevel should be maintained in the vertical position.
- In most adults, the needle is advanced 4–5 cm (11/2–2 in.) before the SAS is reached; the examiner usually recognizes entry as a sudden release of resistance, a "pop."
- If no fluid appears despite apparently correct needle placement, then the needle may be rotated 90°–180°.
- If there is still no fluid, the stylet is reinserted and the needle is advanced slightly.

- Once the SAS is reached, a manometer is attached to the needle and the opening pressure measured.
- CSF is allowed to drip into collection tubes; it should not be withdrawn with a syringe.
- **Volume - 2-4 ml** of CSF should be collected, the rate of collection should be slow, about 4-5 drops a second [1 ml minimum volume required for culture]
- Prior to removing the LP needle, the stylet is reinserted to avoid the possibility of entrapment of a nerve root in the dura as the needle is being withdrawn; entrapment could result in a dural CSF leak, causing headache.
- Following LP, the patient is customarily positioned in a comfortable, recumbent position for 1 h before rising,
- When the procedure is completed, the needle is removed and an adhesive bandage is placed over the injection site.
- Label the specimen as described earlier.
- Transport to the laboratory as soon as possible.

d) **EAR SWAB**

- Use sterile swab stick
- Collect under direct vision
- Do not instill antibiotic / antiseptic into the ear prior to collection
- Allow the swab to soak in the exudate for 10 seconds
- **Place in sterile container (plugged / screw capped test tube), label and transport immediately.**

e) **EYE SWAB (CORNEAL/ CONJUNCTIVAL)**

- Moisten the swab in sterile normal saline
- Hold the swab parallel to the cornea and gently rub the lower conjunctiva
- **Place in sterile container (plugged / screw capped test tube), label and transport immediately.**

f) SPECIMENS FOR LOWER RESPIRATORY TRACT

Types of specimen: Lower Respiratory Tract Specimens include:

- Sputum –expectorated
- Sputum - induced
- Bronchial washings
- Broncho alveolar lavage [BAL]
- Mini-BAL
- Endotracheal aspirates
- Tracheal swabs
- Bronchial aspirate
- Bronchial brushing
- Protected catheter brush specimen
- Transthoracic aspirates
- Trans tracheal aspirate
- Open Lung biopsies

Responsibility: Clinician (or nursing assistant depending on invasiveness of procedure)

Sputum –expectorated

Requirement:

- Patients without complaints of cough with expectoration should preferably not be referred for sputum examination.

For culture –

- **The container** should be sterile, wide-mouthed, screw-capped with a capacity of approximately 15-20 ml and labeled.
- The container can be procured from 313. Third floor, college building.
- The procedure of collection should be explained to the patient.
- This includes: Explaining the difference between saliva (spit) and sputum.
- Explaining the cough etiquette and its importance
- **For sputum microscopy** (acid fast bacilli) clean, screw capped containers are provided by DOTS centre
- Collection:

- **Volume – 2-5 ml Number of specimens:** One for bacterial culture Two (one early morning and one spot) for sputum AFB examination Collection should be done in a well-ventilated area away from people especially children.
- The patient should first rinse his/her mouth with plain water. The patient should open the container without contamination, breathe slowly and deeply, bend forward and generate a deep cough. Collect the expectorant in the container by pressing the rim of the container under the lower lip to catch the entire expectorated cough sample After collection, the cap of the container should be tightly screwed. Any spilled material on the outside should be wiped off with a tissue moistened with 1% sodium hypochlorite or alcohol, and care should be taken not to let any disinfectant enter the container.
- If the collection is done at home, visible contamination should be wiped off with house hold bleach.
- It should be ensured that the sputum sample is of good quality. A good quality sputum sample is thick, purulent and sufficient in amount (2-3ml).
- Fill the form and send sample immediately to lab.

Sputum – Induced

- When sputum production is scanty, induction with physiotherapy, postural drainage, or nebulized saline may be effective.
- This procedure should be carried out in an area which is isolated and preferably under negative pressure or well ventilated without other humans around.
- Allow the patient to breathe aerosolized droplets of a solution containing 15% sodium chloride and 10% glycerin for 10 minutes or until a strong cough reflex is generated.
- Collect the sputum thus generated (which tends to
- be watery) **in a sterile screw capped labeled container (as for sputum above)** and send to the laboratory immediately along with the duly filled requisition form.
- Mention that the specimen is induced sputum in order to avoid specimen rejection.

Bronchial washings

- Bronchial washings are collected in a similar fashion to bronchial aspirate (see below), but the procedure involves the aspiration of small amounts of instilled saline from the large airways of the respiratory tract.

  Container – Sterile screw capped test tube

Broncho alveolar lavage (BAL) culture

- The sampling area is selected based on the correspondent area of the infiltrate on chest radiograph or by the visualization of a sub segment containing purulent secretions.
- A volume of sterile saline is instilled and then gently aspirated.
- (approximately 100 ml)
- Approximately 5 ml lavage is to be sent to the laboratory for microbiological examination.
- **Container – Sterile screw capped test tube**

Endotracheal aspirate

- Indication - in intubated patients with suspicion of pulmonary infection
- Position the tip of the bronchoscope close to the segmental area corresponding to radiographic infiltrates.
- Instill 3 aliquots of 50 mL or 5 aliquots of 30 mL saline
- After the injection of each aliquot, gently aspirate through the suction channel.
- Send atleast 10 ml of the aspirate for microscopy and culture.
- **Container – Sterile screw capped test tube**

Bronchial aspirate

- These are collected by direct aspiration of material from the large airways of the respiratory tract by means of a flexible bronchoscope. Approximately 5 ml lavage is to be sent to the laboratory for microbiological examination.

g) SPECIMENS FOR UPPER RESPIRATORY TRACT

Types of specimen:

- Throat swab
- Nasopharyngeal swab

Requirement:

- Sterile swab
- **Container** - Sterile test tube , screw capped / cotton plugged to place the swab
- Clean tongue depressor
- Source of light

General instructions

- Follow standard precautions
- In suspected cases of diphtheria and flu, swabs should be collected both from the throat and the nose
- In case of flu, use the special swab provided
- with the viral transport medium (VTM). Maintain cold chain in triple pack while transport.
- Do not obtain throat samples if epiglottis is inflamed, as sampling may cause serious respiratory obstruction

Procedure:

- Perform hand hygiene.
- Wear appropriate mask / respirator for personal protection.
- Use a face shield.
- Wear clean / sterile gloves.
- Ask patient to open his / her mouth without putting out his tongue and to say 'Ahhhhh....'
- While the patient is saying 'Ahhhhh', press down the outer two third of tongue with tongue depressor, using the left hand, enabling the tonsils and back of the throat to become visible.
- Introduce the swab with right hand between the tonsillar pillars and behind the uvula, while avoiding touching the tongue, cheeks, uvula, or lips.
- Rub the swab firmly against the inflamed part for 5 seconds while turning it round

- In case of suspected diphtheria, swab the membrane if present and If nothing abnormal is seen, swab the tonsils, the fauces and the back of the soft palate
- Take two swabs and immediately plug the same in sterile test tubes
- Specimens should be transported to the laboratory immediately after labelling and properly filling up the requisition form.

h) **OPHTHALMIC SPECIMENS - CORNEAL SCRAPE AND CONJUNCTIVAL SCRAPING**

- To be collected only by ophthalmologist.
- After anaesthetizing the eye with local anaesthetics, retract the lid with retractor. Using the blunt edge of sterile scalpel blade, scrape the ulcerated area away from the pupillary area. Wipe the scrapings on a sterile swab stick wetted with broth Collect more scrapings in similar way for smear and KOH mount.

i) **PUS**

- Aspirate pus through a sterile syringe and needle where possible.
- **Transfer a portion (1-2ml) to a screw capped sterile container (test tube)**
- **For anaerobic organisms,** transfer specimen to Robertson's cooked meat medium for culture. The medium is available from media room, Department of Microbiology, 313, third floor, college building.

j) **STOOL**

- Collect fresh stool specimen in a decontaminated and well rinsed bed pan. **Transfer one teaspoonful** to the appropriate screw capped container.

k) **URINE – CLEAN CATCH**

- Provide adequate instructions on what to collect (mid-stream) and how much to collect (5ml) and container (screw capped sterile container) to be used, to patients for **clean catch** mid-stream urine specimens. In case there is likely to be a delay in transport, refrigerate the specimen (4°C) **Men:** Retract the prepuce and clean the urethral meatus with soap and water. Collect mid-stream urine. **Women:** Clean the periurethral area with soap and water, movement being directed front to back. Repeat twice. Collect mid-stream urine.

Urine –catheterized

- Decontaminate / Disinfect catheter specimen port with alcohol wipe.
- Using a sterile syringe and needle collected 5 ml urine form catheter specimen port.
- Transfer the specimen to the appropriate urine container (screw capped test tube, sterile)
- In case there is likely to be a delay in transport, refrigerate the specimen
- (4°C) **Urine – Suspected tuberculosis**
- Early morning urine , **25-30 ml**, on three consecutive days

l) WOUND SWAB

- Not a good quality specimen
- Aspirated fluid / tissue preferred
- If swabs need to be collected, use a sterile swab.
- Collect two swabs.
- Cleanse the wound with sterile distilled water / normal saline wipes.
- Place the swab in the wound / purulent area, rotate gently for 10 seconds allowing the secretions to be soaked.
- Place in a sterile labeled container (test tube, plugged / screw capped) aseptically and transport immediately to lab.

NEEDLE STICK INJURY PROTOCOL

Needle stick injury while collecting / transporting / handling / disposing specimens / collection devices, is an indication for postexposure prophylaxis (PEP)

Procedure to be followed when exposure has occurred

- Wash the area with soap and water. Avoid squeezing and milking of the wound
- Do not use caustic agents, such as bleach
- Inform your superior and consult MICU for PEP drugs
- The medical officer will determine the risk i.e. type of exposure and infection status of source and decide on treatment. It is important to initiate PEP as early as possible and within 72 hours.
- Get lab test and follow up in 3 – 6 months.
- If PEP is initiated, and the source later determined to be HIV negative, PEP should be discontinued.
- If PEP is required, it should be given for 28 days.

SPILL PROTOCOL - For spills with blood and body fluids

1. Clear the area and start the spill containment
2. Instruct the housekeeping staff on the protocol which is as follows:
3. Don appropriate PPE (impervious gown, gloves, face shield or goggles as appropriate and boots if spill is large.)
4. Wear heavy duty gloves and then pick up any broken glass with the help of forceps and discard into sharp container.
5. Cover the spill with paper towel / absorbent (gauze) and allow soaking
6. Pour disinfectant > or = 1% sodium hypochlorite onto absorbent with circular motion, from outside towards centre.
7. Allow it to stand for 30 minutes
8. Clean the paper towel / gauze and discard in the yellow bag.
9. Disinfect contaminated surface with appropriate disinfectant as above and wipe with mop.
10. Disinfect the heavy duty gloves and forceps with 1% sodium hypochlorite before storage, wash well in running water and store dry.

SPECIMEN TRANSPORT

- The transport of specimens should be done as soon as possible to the respective sections, preferably within 2 hrs of collection along with completely filled and signed requisition form. Check specimen acceptance timings.
- Place the specimen container in a tray / container in such a manner that it remains upright and does not spill / fall. Do not transport specimens in aprons and shirt pocket.
- The person transporting the specimen should be instructed as to the location for the test and provided with gloves by the clinician and sister in charge respectively.
- If specimens are not transported as per requirement, they may be rejected.
- The requisition form should accompany the specimen and should not be placed in the same tray as the specimen. Do not wrap the requisition form around the specimen container.
- The specimen and the forms should be transported in a separate tray / container.
- For TrueNat SARS CoV-2 specimen to be transported within 72 hours post collection at room temperature
- For CBNAAT SARS CoV-2 within 8 hours at room temperature
- REQUISITION FORMS SOILED WITH THE SPECIMENS WILL NOT BE ACCEPTED.

STORAGE OF SPECIMENS (TEMPORARY)(for Serology and Immunology laboratories only)

- In case of anticipated delay in the transport of blood specimens beyond 4 hrs, allow the blood to clot (for investigations requiring serum) and then store in the refrigerator and send the next day. The same should be then clearly mentioned on the requisition form.

SPECIMEN RECEIPT AND ACCEPTANCE

- The specimens are accepted at the reception counter.
- The sections are manned by trained lab technicians and assistants/ attendants who also guide the patients for other investigations required.
- The designated person checks transport conditions and instructs for corrections if deviations found.
- Validates the details on the requisition form with the specimen and label on the container.
- If appropriate, the specimen is accepted
- Acceptance is based on the following criteria being satisfied.

Specimen acceptance criteria

- Appropriate specimen
- Appropriately labeled container
- Appropriate volume
- Appropriate transport
- Completely filled and signed requisition form
- No leakage, breakage, soiling of the container / requisition form
- Details on the specimen container and requisition form match

Specimen rejection criteria

- Incomplete requisition and no signature of the clinician on the form
- Insufficient specimen quantity
- Hemolysed blood specimen
- Lipaemic blood specimen
- Soiled blood specimen (specimen is accepted and a new requisition form is asked)
- Leakage or broken specimen container
- Written consent not taken for HIV testing
- Specimen in wrong container
- Visibly contaminated
- Sample collected and kept for more than recommended time for molecular testing
- Not fulfilling the BYL Nair Hospital authority guidelines for SARS CoV-2 molecular testing

REPORT DISPATCH

- The reports are delivered through various modes.
- HIV reports are given to the respective direct walk-in clients / OPD patients after post test counseling by the counselor.
- HIV reports of antenatal clinics patients (ANC) are handed over to the counselor working under PPTCT (Prevention of parent to child transmission) program.
- HIV reports of indoor patients are handed over to the respective patients and/or dispatched to ward staff in various wards after post-test counseling by the counselor.
- CD4 reports are handed over to the antiretroviral therapy centre counselor
- For molecular diagnostics all reports are handed over to relative or ward assistant
- For Xpert MTB/RIF reports are to be collected from TB OPD 25C or ART centre.
- All other reports of the indoor patients are dispatched to the respective wards. Reports will be handed over to the authorized person with his or her sign in the dispatch book.
- For OPD patients whose specimen has been processed in any section (other than ICTC), reports are handed over directly to the patient or representative on producing the relevant copy of the request.
- Appropriate log of report dispatch and delivery are maintained
- DUPLICATE REPORTS ARE NOT ISSUED routinely.

COMPLAINTS

For any complaints pertaining to any of the services offered, a note maybe sent anytime to the HOD to facilitate correction as required and improvement of services. Clinicians are also requested to fill the feedback forms with relevant suggestions for improvement

REFERENCES

1. World Health Organization Chapter 2 Collection and Transportation of Clinical Specimens In Blood Safety and Clinical Technology / Guidelines on Standard Operating Procedures for Microbiology available online @ http://www.searo.who.int/EN/Section10/Section17/Section53/Section482_1779.htm
2. COVID-19 - Sample collection guidelines Indian Council of Medical Research – National Institute of Epidemiology.1 April 2020.
3. CBNAAT kit insert- https://www.fda.gov/media/136314/download
4. TrueNat Kit Insert- https://www.molbiodiagnostics.com/uploads/product_download/20200610.165040~Truenat-SARS-CoV-2-packinsert-VER-03.pdf

APPENDIX 1

Sr No	Test Sample	Sample	Turn Around Time (TAT)
ICTC			
1	HIV testing for indoor and antenatal mothers	3-6 ml blood in a red/gold top vacutainer along with consent cum requisition form	Next working day after 2 pm (24 hours)
2	HIV Counseling and testing for OPD and direct walk in clients	3-6 ml blood sample in red/gold top vacutainer	Same day after 3 pm (for specimens collected before 12 pm) Next working day after 2 pm (for specimens collected after 12 pm)
3	CD4 Testing for ART patients	3-6 ml blood sample in purple top vacutainer	Next working day after 10 pm (24 hours)
IMMUNOLOGY			
4	HBsAg testing for OPD and indoor patients	3-6 ml blood sample in a red/gold vacutainer	Next working day after 2 pm (24 -48 hours)
5	HCV antibody testing for OPD and indoor patients	3-6 ml blood sample in red/gold vacutainer	Next working day after 2 pm (24 -48 hours)
6	HAV antibody testing for OPD and indoor patients	3-6 ml blood sample in red/gold vacutainer	Testing done twice in a week(Monday and Thursday) so report available on next working day after 2 pm (48-72 hours)
7	HEV antibody testing for OPD and indoor patients	3-6 ml blood sample in red/gold vacutainer	Testing done twice in a week(Monday and Thursday) so report available on next working day after 2 pm (48-72 hours)
8	Chikungunya antibody testing for OPD and indoor patients	3-6 ml blood sample in red/gold vacutainer	Testing done first of every month, once in a month so report available on next working day after 2 pm
9	Leptospira IgM antibody testing for OPD and indoor patients	For rapid positive cases only	Testing done once in a week(Friday) so report available on next working day after 2 pm

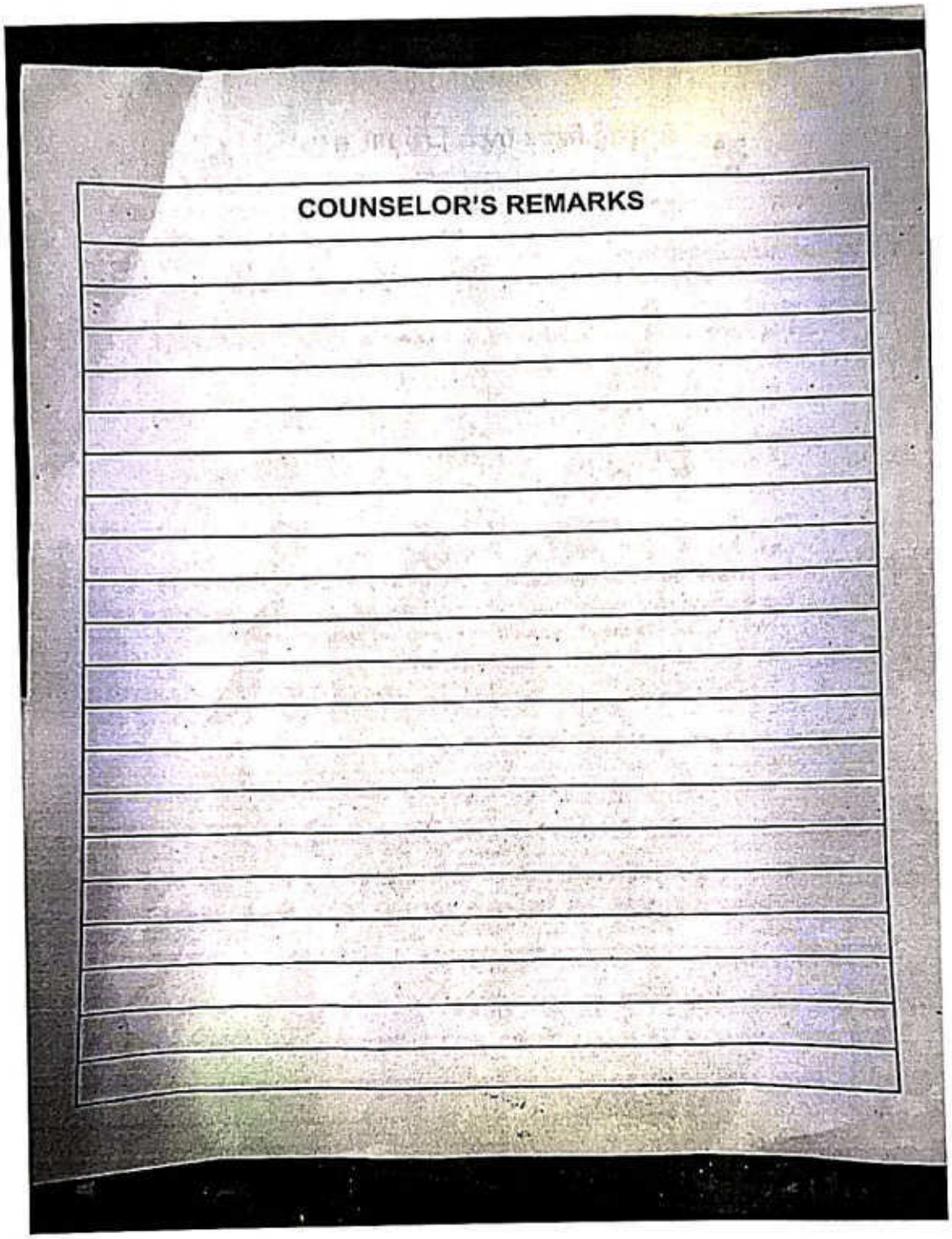
10	Dengue NS1 antigen testing for OPD and indoor patients	For rapid positive cases only	Testing done once in a week(Friday) so report available on next working day after 2 pm
11	Dengue IgM antibody testing for OPD and indoor patients	For rapid positive cases only	Testing done once in a week(Friday) so report available on next working day after 2 pm
SEROLOGY			
12	Widal test	3-6 ml blood sample in red/gold top vacutainer	Next working day after 2 pm (24 hours)
13	RA test	3-6 ml blood sample in red/gold top vacutainer	Same day after 2 pm (for specimens received before 11am) Next working day after 2 pm (for specimens received after 11 am)
14	ASO test	3-6 ml blood sample in red/gold top vacutainer	Same day after 2 pm (for specimens received before 11am) Next working day after 2 pm (for specimens received after 11 am)
15	VDRL/RPR test	3-6 ml blood sample in red/gold top vacutainer	Same day after 2 pm (for specimens received before 11am) Next working day after 2 pm (for specimens received after 11 am)
16	Leptospira IgM Rapid	3-6 ml blood sample in red/gold top vacutainer	4 hours
17	Dengue NS1 Rapid		
18	Dengue IgM Rapid		
19	Malaria Antigen Rapid	3-6 ml blood sample in purple top vacutainer	4 hours
20	HBsAg Rapid (only for emergency hemodialysis patients)	3-6 ml blood sample in purple top vacutainer	1 hour
21	HCV Rapid (only for emergency hemodialysis patients)	3-6 ml blood sample in purple top vacutainer	1 hour

22	PCR (Leptospira/Dengue/H1N1)	3-6 ml blood sample in purple top vacutainer /nasopharyngeal swab in VTM	Sample transported to PCR Lab, Kasturba hospital at 10 am on all working days. Email of reports sent to medicine department(medicinedepttnmc@gmail.com) and paediatric department (nairpediatric@hotmail.com). Hard copy of reports sent to medicine and pediatric department offices. Other specialties reports are dispatched to the respective wards.
RSTRRL			
23	VDRL/RPR	3-6 ml blood sample in red/gold top vacutainer	Same day after 2 pm (for specimens received before 11am) Next working day after 2 pm (for specimens received after 11 am)
24	TPHA	3-6 ml blood sample in red/gold top vacutainer	Same day after 2 pm (for specimens received before 11am) Next working day after 2 pm (for specimens received after 11 am)
25	HBsAg testing for ART and RTI/STI patients	3-6 ml blood sample in a red/gold vacutainer	Testing done twice in a week (Monday and Thursday) so report available on next working day after 2 pm (48-72 hours)
26	HCV antibody testing for OPD and indoor patients	3-6 ml blood sample in red/gold vacutainer	Testing done twice in a week (Monday and Thursday) so report available on next working day after 2 pm (48-72 hours)
27	Gram Staining for diagnosis of STI /RTI s	Urethral discharge in case of males, cerivical swab or discharge, vaginal swab or discharge, aspirate	24 hours

Molecular Diagnosis			
28	CBNAAT testing for SARS CoV-2	Nasopharyngeal swab	2 hours
29	TrueNat testing for SARS CoV-2	Nasopharyngeal & Oropharyngeal swab	2 hours
Mycobacteriology			
30	Xpert MTB / RIF	Sputum, Gastric Lavage, Bronchoalveolar lavage, Pus/abscess aspirate, Cerebrospinal fluid, Other sterile fluids (Ascitic, Pleural, Peritoneal, Pericardial, Synovial), Bone marrow, Tissue/Biopsy, Fine needle aspirates in 50 ml sterile screw capped container.	2 working days after receipt of specimen
Mycology			
31	KOH test	Sputum in sterile screw capped container, Skin scrapping in Petri dish, filter paper/clean paper or test tube, Nail in sterile petridish, Hair, Skin biopsy/ tissue in sterile screw capped container, Ophthalmic specimen (corneal scrape, corneal button, conjunctival scraping), Mycetoma granules, Pus in sterile screw capped container	24 hours after receipt of specimen. For Skin Biopsy/tissue and Ophthalmic specimens: 24- 48 hours after receipt of specimen
Parasitology			
32	Saline mount and Iodine mount	Stool specimen in a sterile wide mouth container.	24 hours after receipt of specimen
Clinical Bacteriology The container for collection should be clean, sterile and screw capped or plugged and appropriately labelled.			
33	Microscopy – Gram's stain, Albert's stain	**1.0 ml Critical specimens – CSF, Tissue/swab for gas gangrene, Tissue / swab for Diphtheria, Pancreatic fluid, Brain abscess, Ocular specimens**	2 hrs
34	Microscopy – Gram's stain	Specimens other than above	4 hrs
35	Hanging Drop	1 ml	30 minutes
36	Aerobic culture	At least 1 ml except blood culture [refer section]	24 – 96 hrs
37	Antibiotic Sensitivity Test – aerobic bacteria	NA	72 hrs – 5 days

38	Anaerobic culture	Sterile Swabs – soaked in exudates Tissue – NA Pus – at least 1 ml	72 hrs. – 5 days
39	Surveillance cultures	Exposure plates for clean rooms (such as operation theatres) and swabs from environmental and clinical contact surfaces as appropriate	24 hrs. for aerobic bacteria 72 hrs. for sporing anaerobes 5 days – 2 weeks to rule out fungal contamination
Emergency Laboratory			
40	Critical specimens / critically ill patients Microscopy Gram's stain Albert's stain India Ink for Cryptococcus Stool-Hanging Drop Culture –inoculation only	1.0 ml	1 hr for critical specimens 2 hrs for others

APPENDIX 2



मुंबई जिल्हे एड्स नियंत्रण संस्था

एच्. आय्. व्ही. चाचणीसाठी लिखित संमती

मी याद्वारे नमूद करतो / करते की, माझ्या रक्ताच्या नमुन्यावर एच्.आय्.व्ही. संबंधाने करावयाच्या चाचणी बाबत माझ्याशी विचार-विमर्श करण्यात आला असून मला त्या संबंधीची माहिती पूरविण्यात आली आहे. एच्.आय्.व्ही. संसर्गाबाबत करण्यात येणाऱ्या चाचणीच्या संभाव्य निष्कर्षाबाबत मला समजाविण्यात आले आहे. त्याचप्रमाणे, एच्.आय्.व्ही. म्हणजे काय, त्याचा संसर्ग कसा होतो, त्याचा प्रतिबंध कसा केला जातो, चाचणीची प्रक्रिया, तिची मर्यादा आणि चाचणीच्या निष्कर्षाचा अर्थ आदि संबंधी सर्व माहिती, मला समजेल अशा पद्धतीने स्पष्टपणे सांगण्यात आली आहे.

माझ्या एच्.आय्.व्ही. संसर्गाची पातळी निश्चित करण्यासाठी, माझ्या रक्ताच्या नमुन्यावर चाचणी करण्याकरीता मी याद्वारे माझी संमती देत आहे.

आश्वासकाची स्वाक्षरी
दिनांक- / /२०

टीप: १) रुग्णालयात विविध चाचण्या / तपासणी करण्यासाठी घेतल्या जाणाऱ्या सर्वसामान्य संमती मध्ये एच्.आय्.व्ही. संबंधीच्या संमतीचा समावेश नसतो. एच्.आय्.व्ही. चाचणीसाठी त्याबाबतची वेगळी संमती घेण्यात यावी.

२) अज्ञान व्यक्तींच्या संदर्भातील चाचणीसंबंधीची आवश्यक संमती, अशा व्यक्तींच्या / बालकाच्या पालकांकडून घेतली जावी.

३) मानसिक आजाराने पिडीत असलेल्या व्यक्तीकडून, त्यांच्या सध्याच्या स्थितीबाबत नेमून दिलेल्या अधिकाऱ्याने दिलेल्या माहितीच्या आधारावर एच्.आय्.व्ही. चाचणीसाठी समती घेण्यात यावी अथवा अशा व्यक्तींच्या काळजीची जबाबदारी स्विकारलेल्या व्यक्तीकडून एच्.आय्.व्ही. चाचणी करण्यापूर्वी संमती घेण्यात यावी.

४) बेशुद्धावस्थेतील रुग्णांच्या बाबतीत, उपचारांच्या दृष्टीने एच्.आय्.व्ही. संसर्गाचे निदान करण्याची आवश्यकता असल्यास, या संबंधीची लिखित संमती रुग्णाचे पालक, पती / पत्नी जवळचे नातेवाईक यांच्यापैकी, जो त्यावेळी उपलब्ध असेल त्याच्याकडून घेण्यात यावी. रुग्णांच्या नातेवाईकांपैकी कोणीही उपलब्ध नसल्यास, आणि उपचारांसाठी अशी चाचणी अत्यावश्यक असल्यास, रुग्णांवर उपचार करणाऱ्या दोघा डॉक्टरांची याबाबतची शिफारस / अनुमती घेऊनच ही चाचणी करण्यात यावी.

५) जर रुग्णास वैद्यकीय दृष्टया फायदेशीर ठरत असेल तर एच्.आय्.व्ही. संसर्गाची स्थितीसहित इतर गोपनीय वैद्यकीय माहिती अनैच्छिक रित्या (Non Voluntary Disclosure) उघड करता येऊ शकते, किंवा रुग्णांच्या ओळखता येण्याजोग्या साथीदारास (Identifiable Partner) रुग्णांकडून एच्.आय्.व्ही. संसर्गाचा संभाव्य लैंक्षणिक धोका असल्यास पण अशी गोपनीय माहिती उघड करता येऊ शकते. ही माहिती रुग्णाच्या उपचारात प्रत्यक्ष सहभाग असलेल्या अधिकाऱ्यापुढे उघड करण्यात यावी. जर रुग्णांच्या जीवाला (आत्महत्येच्या विचाराचा) किंवा त्याच्या/तिच्या साथीदाराच्या / पती / पत्नीच्या जीवाला धोका असेल तरी देखील ही माहिती उघड करता येऊ शकते. (Partner Notification)

भारत सरकारच्या कायदा व सुचनांनुसार वरील टीपांमध्ये बदल होऊ शकतो.

मी लिहून देतो / देते की, मी दिनांक / /२० रोजी माझ्या स्वतःचे / मुलाचे / मुलीचे एच्.आय्.व्ही. करीता घेण्यात आलेल्या रक्त तपासणीचा रिपोर्ट घेण्याकरीता आलो / आले आहे. मला संबंधीत रिपोर्टविषयी संपूर्ण माहिती दिली आहे व माझे पुर्ण समाधान झाले आहे.

दिनांक: / /२० रोजी रिपोर्ट घेतला आहे. स्वाक्षरी :

APPENDIX 3

बृम.मु-१७८०-२०१३-१४-२,००० x १०० बृहन्मुंबई महानगरपालिका HP-1

विकृतिशास्त्र आणि अणुजीव शास्त्र विभाग

विकृतिचिकित्सा

..... रुग्णालय

दिनांक ---------- २० आंतर/बाह्य रुग्ण नोंद क्रमांक ----------

कक्ष/विभाग ---------- खाट क्र. ---------- डॉ. ----------

नांव .....

पुरुष/स्त्री ---------- वय ---------- व्यवसाय ----------

चिकित्सालयीन रोग निदान ---------- रोगाचा कालावधी ----------

पाठविलेली सामुग्री .....

आवश्यक तपास .....

व्याधि विवरण .....

.....

पूर्वीची प्रयोगशालेय तपासणी .....

अन्य संबंधित माहिती .....

विकृति चिकित्सेचे निष्कर्ष .....

दिनांक ---------- रोजी सकाळी/दुपारी ---------- वाजता बोलाविले.

वैद्यकीय अधिकारी

APPENDIX 4

Brihanmumbai Mahanagarpalika
KASTURBA HOSPITAL FOR INFECTIOUS DISEASES
MOLECULAR DIAGNOSTIC REFERENCE LABORATORY
Mumbai: 400 011

Lab No. : L –
Date:

Date :
Hospital Name, Add:
Bed/Ward/ Unit :

PROFORMA FOR LEPTOSPIRA

Patient's Details :

Full Name : _____

Registration No. : _____ **Age:** _____/ **Sex : Male/Female**____

Contact Address : _____

_____

Contact No. : _____ **Education:**
Sample type : **Date & Time of Sample Collection:** _____

Clinical Details	Occupation	Water Contact	Animal Contact	Type of Contact
Flu like Illness	Farmer	Rain Water	Rats	Occupational
Headache	Outdoor Worker	Water Sport	Mice	Recreational
Myalgia	Indoor Worker	Swimming	Cattle	Wound
Pyrexia	Fish Farmer	Fishing	Dogs	Bite
Vomiting	Water Worker	River	Sheep	Abrasion
Diarrhea	Veterinarian	Canal	Farm animals	Immersion
Conjunctivitis	Medical	Lake	Unknown	Unknown
Abnormal LFT	Teacher	Pond	Other	Other (Specify)
Jaundice	Student	Ditch		
Hepatic Failure	Housewife	Sewage		
Renal Failure	Military	Other (Specify)		
Meningitis	Retired			
Retro-orbital Pain	Unemployed			
Other	Other (Specify)			
Died				

Report of other Investigations already done:	Additional Information :
Lepto Dri Dot :	
Lepto ELISA :	
Other investigations :	
Date of Onset of Symptoms :	**Clinician Name:**
Date of Antibiotic Treatment:	**Designation:**
Antibiotics given:	**Signature with Date:**

APPENDIX 5

Brihanmumbai Mahanagarpalika
KASTURBA HOSPITAL FOR INFECTIOUS DISEASES
MOLECULAR DIAGNOSTIC REFERENCE LABORATORY
Mumbai: 400 011

Lab No.: D –
Date:

Date:
HOSPITAL name, add:
Ward/Bed/Unit:

PROFORMA FOR DENGUE FEVER

Patient's Details:

Full Name : .....

Registration No. : ..... Age: ...../ Sex: Male/Female .....

Contact Address : .....

.....

Contact No. : .....
Sample:

Date of sample collection : .....
Time of sample collection:

Clinical Findings: Date of onset of first symptoms:	Hemorrhagic Manifestation: Yes / No
a) Fever :..... Days b) Headache :..... Days c) Bodyache :..... Days d) Joint Pain :..... Days e) Rash :..... Days f) Retro-orbital Pain:..... Days	If Yes, describe: a) Petechiae b) Purpura/Echymosis c) Vomit with Blood d) Blood in stool/urine e) Nasal Bleeding f) Vaginal Bleeding g) Bleeding Gums

Other Symptoms:	Complications: Yes / No If Yes, describe: Other Clinical Findings:
a) Chills b) Nausea/Vomiting c) Diarrhea d) Cough e) Conjunctivitis f) Jaundice	

Report of other Investigations:	Filled by:
a) Platelet Count : b) Malaria Parasite : c) NS1 Antigen : d) Dengue ELISA : e) Other Investigations :	Name of Clinician: Designation: Signature with date: Contact no.

APPENDIX 6

Lab no. Date:

Brihanmumbai Mahanagarpalika
MOLECULAR DIAGNOSTIC REFERENCE LABORATORY
KASTURBA HOSPITAL FOR INFECTIOUS DISEASES
Sane Guruji Marg, Mumbai: 400 011

PROFORMA FOR H1N1 Influenza Virus Testing

Name & Unit of referring Doctor		
Name of Hospital		
Hospital Address		
Hospital Phone no.		
Filled by :		**Date :**

Patient's Name:	
Registration no :	**Age :**
Sex : Male / Female	**Telephone number :**
Address :	
Date of onset of illness :	

CLINICAL SIGNS AND SYMPTOMS:

Temperature-Axilla > 38 ° C	Yes / No	Sore Throat	Yes / No
Temperature-Oral > 38.5 ° C	Yes / No	Nasal Catarrh	Yes / No
Cough	Yes / No	Shortness of breath	Yes / No
		Difficulty in breathing	Yes / No
Headache	Yes / No	Vomiting	Yes / No
Body ache	Yes / No	Diarrhea	Yes / No

Exposure History

International travel : Yes / No Country : Date of Visit :	
Close contact with person (within 7 days) who is confirmed case of Influenza H1N1 :	Yes / No
Travel to a community (within 7 days) where one or more confirmed cases of Influenza H1N1 have been reported :	Yes / No
Resides in a community where one or more confirmed cases of Influenza H1N1 have been reported :	Yes / No

Sample Collection:

Date of collection : Number of samples :
Type of sample collected - Throat swab / Nasal swab / other 9 please specify)
Whether treatment taken: Yes / No
Details of treatment:
Investigations done :
Chest X-Ray findings :

Name of Clinician:
Designation:
Signature:

APPENDIX-7

SARS CoV-2 TrueNat and CBNAAT specimen referral form

ICMR Specimen Referral Form for COVID-19 (SARS-CoV2)

INTRODUCTION

This form is for collection centres/ labs to enter details of the samples being tested for Covid-19. It is mandatory to fill this form for each and every sample being tested. It is essential that the collection centres/ labs exercise caution to ensure that correct information is captured in the form.

INSTRUCTIONS

- Inform the local / district / state health authorities, especially surveillance officer for further guidance
- Seek guidance on requirements for the clinical specimen collection and transport from nodal officer
- This form may be filled in and shared with the IDSP and forwarded to a lab where testing is planned
- Fields marked with asterisk (*) are mandatory

SECTION A – PATIENT DETAILS

A.1 TEST INITIATION DETAILS

*Sample collected first time: Yes ☐ No ☐

If No, Patient ID: .....

A.2 PERSONAL DETAILS

*Patient Name: ..... Father's Name.....

*Age: .... Years/Months/ Days (If age <1 yr, pls. tick months/ days checkbox)

* Gender: Male ☐ Female ☐ Transgender ☐

*Occupation: Health Care Worker ☐ Police ☐ Sanitation ☐ Security Guards ☐ Others ☐

*Mobile Number: ☐☐☐☐☐☐☐☐☐☐ Mobile Number belongs to: Patient ☐ Family ☐

*Nationality: .....

*Present patient address: ..... *Downloaded Aarogya Setu App: Yes ☐ No ☐

..... Pincode .....

*District ..... *State:.....

(These fields to be filled for all patients including foreigners)

Aadhar No. (For Indians): .....

Passport No. (For Foreign Nationals): .....

*Received COVID-19 vaccine: Yes ☐ No ☐

If yes type of vaccine: Covaxin ☐ Covishield ☐

Date of Dose 1 --/--/---- Date of Dose 2 --/--/----

***A.3 SPECIMEN INFORMATION FROM REFERRING AGENCY**

***Specimen type:** Throat Swab ☐ Nasal Swab ☐ Bronchoalveolar lavage ☐ Endotracheal Aspirate ☐ Nasopharyngeal ☐

***Type of test:** RT-PCR ☐ Rapid Antigen Test (RAT) ☐

***Name of kit used:** ☐

***Collection date:** ☐☐ ☐☐ ☐☐☐☐

***Sample ID (Label)** .....

Symptomatic ☐ Asymptomatic ☐

Contact of a lab confirmed case: Yes ☐ No ☐

If, RT-PCR test, name of lab where sample is sent for testing (Drop down – list of Rt-PCR/ TrueNat/ CBNAAT labs)

*** Mode of Transport used to visit testing facility**

☐ Public – In drop down menu – Bus, Metro, Train, Cab, Auto, Ambulance

☐ Private – In drop down menu – Car, Scooty, Bike, Bicycle, Walk

☐ Not Applicable

Please Note - Hospital form is required for the patients visiting OPD, IPD and Emergency and Community form is required for patients under containment zone/ Non-containment area/ Point of entry/ Testing on demand

*A.3.1 For Community

Sample collected from

☐ Containment Zone

☐ Non-containment area

☐ Testing on demand

☐ Point of entry

Cat 1: All symptomatic (ILI symptoms) cases
Cat 2: All asymptomatic high-risk individuals (Any individual who falls under Section B2)
Cat 3: All symptomatic (ILI symptoms) individuals with history of international travel in the last 14 days
Cat 4: All individuals who wish to get themselves tested

A.3.2 For Hospital

Cat 1: All patients of Severe Acute Respiratory Infection (SARI)
Cat 2: All symptomatic (ILI symptoms) patients presenting in a healthcare setting
Cat 3: Asymptomatic high-risk patients who are hospitalized or seeking immediate hospitalization
Cat 4: Asymptomatic patients undergoing surgical / non-surgical invasive procedures (not to be tested more than once a week during hospital stay).
Cat 5: All pregnant women in/near labour who are hospitalized for delivery
Cat 6: All symptomatic neonates presenting with acute respiratory / sepsis like illness
Cat 7: Patients presenting with atypical manifestations [stroke, encephalitis, pulmonary embolism, acute coronary symptoms, Guillain Barre syndrome, Multi-system Inflammatory Syndrome in Children (MIS-C), progressive gastrointestinal symptoms] based on the discretion of the treating physician
Cat 8: All individuals who wish to get themselves tested

Fields marked with asterisk are mandatory to be filled

Please Note: Section B1 and B2 need to be filled for both Community and Hospital settings. Section B3 needs to be filled only for Hospital settings

SECTION B- MEDICAL INFORMATION

B.1 CLINICAL SYMPTOMS AND SIGNS

Cough	☐	Loss of Taste	☐
Sore Throat	☐	Diarrhoea	☐
Fever	☐	Breathlessness	☐
Loss of smell	☐	Other symptoms, please specify:	_____

Date of onset of First Symptom(dd/mm/yy): ☐☐ ☐☐ ☐☐

B.2 PRE-EXISTING MEDICAL CONDITIONS

Diabetes	☐	Over weight/ Obesity	☐
Heart disease	☐	Hypertension	☐
Chronic Lung disease	☐	Cancer	☐
Chronic Kidney Disease	☐	Any other please specify:	_____

B.3 HOSPITALIZATION DETAILS

Hospitalized: Yes ☐ No ☐

Hospital State:

..... Hospital

District: .....

Hospitalization Date: ☐☐ ☐☐ ☐☐

Hospital Name:

.....

TEST RESULT (To be filled by Covid-19 testing lab facility)

Date of sample receipt(dd/mm/yy)	Sample accepted/ Rejected	Date of Testing (dd/mm/yy)	Test result (Positive / Negative)	Repeat Sample required (Yes / No)	Sign of Authority (Lab in charge)

APPENDIX-8

Xpert MTB/RIF specimen referral form

Annexure 15A

NTEP Request Form for examination of biological specimen for TB
(Required for Diagnosis of TB, Drug susceptibility Testing and follow up)

Patient Information

Patient name		Age (in yrs):___	Gender: ☐M ☐F ☐TG
Patient mobile no. or other contact no.		Specimen collection date (DD/MM/YY) _____	☐ Sputum ☐ Other (specify)_____
Aadhaar no.(if available)		HIV Status: ☐Reactive ☐Non-Reactive ☐Unknown	
Patient address with landmark		Key populations: ☐Contact of known TB Patient ☐Contact of known DR TB Patient ☐Diabetes ☐Tobacco ☐Prison ☐Miner ☐Migrant ☐Refugee ☐ Urban slum ☐Health-care worker ☐Other(specify)_____	

Name and Type of referring facility (PHI/DMC/TU/ DTC/ICTC/ART/Medical College/DR-TB Centre/RBSK/Private Others, specify): _____
Health Establishment ID (NIKSHAY): _____
State: District: Tuberculosis Unit (TU):

Type of patient: ☐ Public sector ☐ Private sector
Episode ID: _____

Reason for Testing

Diagnosis and follow up of TB

Diagnosis of TB (for presumptive TB)		Follow up (Smear and culture)
H/O anti TB Rx for >1 month: ☐ Yes ☐ No		
☐ TB symptomatic ☐ Any abnormality in X-ray ☐ Repeat Exam ☐ Presumptive NTM	Predominant symptom _____ Duration: ___days	Reason: ☐ End IP ☐ End CP Post treatment: ☐ 6m ☐ 12m ☐ 18m ☐ 24m

Diagnosis and follow up Drug-resistant TB

Diagnosis of DR TB (DRT/ DST)		Follow up (Smear & culture)
Presumptive MDR TB	☐ New ☐ Previously treated ☐ At TB diagnosis ☐ Follow up Sm+ve DS TB	Treatment follow up month: _____ Type of case: ☐ H mono/poly TB ☐ MDR/RR TB ☐ XDR TB
	☐ Presumptive H mono/poly	Regimen Type: ☐ All oral H mono/poly TB regimen ☐ Shorter MDR TB regimen ☐ All oral longer regimen ☐ Any other regimen
Presumptive XDR TB	☐ MDR/RR TB at Diagnosis ☐ Failure of MDR/RR TB regimen ☐ Recurrent case of second line treatment	Regimen composition: ☐ Lfx ☐ Mfx ☐ Bdq ☐ Lzd ☐ Cfz ☐ Cs ☐ Z ☐ E ☐ Eto ☐ Dlm ☐ Am ☐ Km ☐ Cm ☐ _____

Test requested:

☐ Microscopy ☐TST ☐IGRA ☐Chest X-ray ☐Cytopathology ☐Histopathology ☐ CBNAAT ☐ TruNAAT
☐ Culture ☐DST ☐FL-LPA ☐SL-LPA ☐Gene Sequencing ☐Other (Please Specify) _____

Requested by (Contact No. & Designation and Signature): _____
Contact Number: _____ Email ID: _____

Results:

Microscopy (☐ ZN ☐ Florescent) Test ID:

	Lab Sr. No	Visual appearance	Result				
			Negative	Scanty	1+	2+	3+
Sample A		S M B					
Sample B		S M B					

Date tested: _____ Date Reported: _____ Reported by: _____
Laboratory Name: (Name and Signature)

APPENDIX-9

Culture requisition form

BMPP 20916 2015-16 30000 COPIES MUNICIPAL CORPORATION OF GREATER MUMBAI HC217

TOPIWALA NATIONAL MEDICAL COLLEGE & BYL NAIR CH. HOSPITAL, MUMBAI

DEPARTMENT OF MICROBIOLOGY

LAB No.

TEST REQUISITION FORM

PATIENT DETAILS	SPECIMEN DETAILS
Name:	Nature of specimen:
Age/ gender: Reg. no.:	Date & Time of collection:
OPD/ Ward: Unit:	Site of collection:
Date of admission:	Provisional Diagnosis:

INVESTIGATION REQUIRED (please tick)

I. Clinical Bacteriology (College bldg, Room. no.313)

- Aerobic culture (SCAST Smear, culture & Antimicrobial susceptibility test)
- Throat swab for Diphtheria
- Stool for Hanging drop preparation
- MRSA screening
- Anaerobic culture
- Gram stain only
- Any other investigation (not listed above)

Relevant Clinical information for Bacteriology

- Infection: Community acquired/Hospital acquired?
- Fever : Yes/ No Duration:
- Antibiotics received: Yes/ No Details:
- Invasive procedures: Yes/ No Details:
- Preoperative/ Intraoperative/Postoperative sample
- Related previous test reports:
- Full Address mandatory: _____ (Cholera, Typhoid, TB) _____

II. Mycobacteriology (College bldg, R. no. 311)

- AFB Smear
- AFB Culture

Relevant clinical information for Mycobacteriology

H/o Weight loss Past H/o TB:
H/o AKT taken: H/o TB contact:

V. Any other investigation (not listed above)

III. Mycology (College bldg, R. no. 311)

- Only Microscopy
- Microscopy and fungal culture
- Pneumocystis carinii pneumonia

Relevant clinical information for Mycology

Occupation: Immunosuppression:
H/o Diabetes, Trauma/Injury by vegetative matter, contact lens use

For Laboratory use only

Date specimen received:

Time of receipt:

Name & sign of receiver:

IV. Parasitology (College bldg, R. no. 313[B])

- Stool - routine & microscopy
- Stool- opportunistic parasites
- Pus/Liver aspirate – Entamoeba
- Cyst fluid- Echinococcus
- Ocular sample/ fluid- Acanthamoeba
- Other(please specify below)

Requesting clinician

Sign & date : _____

Name : _____

Designation: _____

Kindly send your suggestions

if any

to the office of

Professor and Head, Department of Microbiology,

Room no 303,3rd floor, College building

BMC MARD 2022

(Cooper, KEM, Nair & Sion Hospitals)

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Gen. Secretary

Dr. Pravin Dhage
President

Dr. Vijayadhaarani S
Gen. Secretary

Dr. Rutuja Pokalwar
Finance Secretary

Dr. Prashanth GN
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Dr. Sudhir Dhanage
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Dr. Akhilesh Moktali
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Dr. Sachin Pattiwar
Academic Secretary

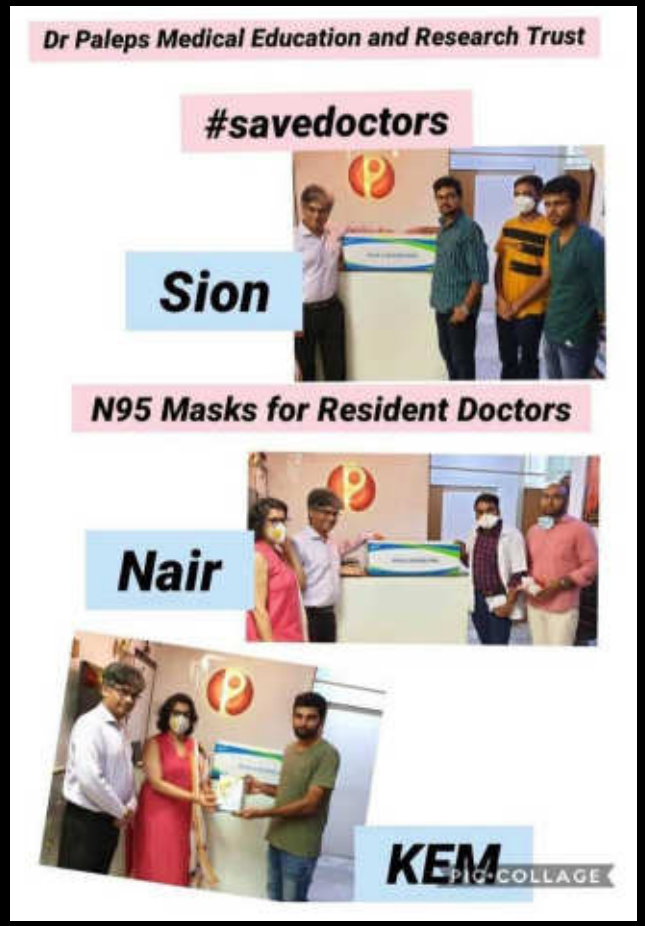
Dr. Vinay Kumar
Joint Secretary

Dr. Akshay Yadav
Advisor

Dr. Arun Ghule
Advisor

Dr. Nilesh Kalyankar
Advisor

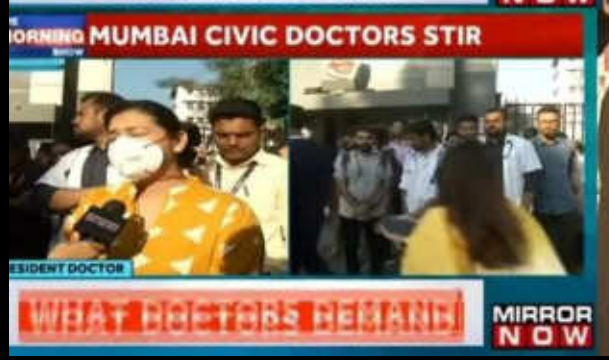
The Inception: Year 2020



Fighting for the rights of BMC residents!

Official Body declared in Feb 2022!

Impact on Social Media!



नायर हॉस्पिटल

कोविड आणि महागाई भत्ता द्या

कोरोना काळात मुंबईतील सर्वच वैद्यकीय महाविद्यालयातील निवासी डॉक्टरांनी जीवाचे रान करून काम केले; मात्र जानेवारी २०२२ नंतर नायर रुग्णालयातील डॉक्टरांना हा भत्ता बंद करण्यात आला. त्याशिवाय २०१८ मध्ये नियमाप्रमाणे जो महागाई भत्ता देणे अपेक्षित आहे त्याबाबतही काही निर्णय झाला नाही. मुद्दा केवळ पैशाचा नाही. हे शिक्षण घेईपर्यंत अनेकांची तिशी आलेली असते. काहींची लग्न झालेली असतात. त्यांच्यावर घरच्यांची जबाबदारी असते. त्यामुळे प्रशासनाने याचा सहानुभूतीपूर्वक विचार करून आमच्या मागण्या मान्य कराव्यात.

- डॉ. चेतनकुमार आढट

कूपर हॉस्पिटल

प्राध्यापकाची रिक्त पदे भरा

बहुतांश वैद्यकीय महाविद्यालयातील सहायक प्राध्यापक आणि सहयोगी प्राध्यापक यांची पदे रिक्त आहेत. ती तातडीने भरली गेली पाहिजेत. त्याशिवाय संपूर्ण राज्यात निवासी डॉक्टरांचे विद्यावेतन हे समान असले पाहिजे. शासकीय वैद्यकीय महाविद्यालयात वेगळे आणि आमच्याकडे वेगळे हे बरोबर नाही. आम्ही सर्व निवासी डॉक्टर त्याच पद्धतीने काम करत असतो.

डॉ. राम नागपूरकर

जे. जे. हॉस्पिटल

संप पुकारायला भाग पडतात

आम्हाला संप करायला आवडत नाही. आम्ही येथे रुग्णसेवा देण्यासाठी आहोत; पण त्याच त्याच मागण्यासाठी किती वेळा निवेदन द्यावे. आमच्या मागण्या योग्य आहेत हे माहीत आहे तर त्या वेळेत पूर्ण का होत नाही हा आमचा प्रश्न आहे. आम्हाला संप करायला आवडत नाही मात्र प्रशासन संप पुकारायला भाग पाडते.

- डॉ. शुभम सोहनी

लोकमत

त्याच त्या मागण्यांसाठी दरवर्षीच का छळत राहता?

लोकमत न्यूज नेटवर्क

मुंबई : निवासी डॉक्टरांच्या एक दोन मागण्या सोडल्या तर त्याच त्या मागण्यांसाठी दरवर्षी आम्हाला का छळता असा संतप्त सवाल निवासी डॉक्टर करत आहेत. अनेक वर्षे वसतिगृहांचा प्रश्न रेंगाळला आहे. त्यासह अन्य मागण्यांसाठी सोमवारी निवासी डॉक्टरांच्या संघटनांनी राज्यातील वैद्यकीय महाविद्यालयात संप पुकारला. मुंबईतील पाच वैद्यकीय महाविद्यालयांच्या निवासी डॉक्टरांच्या अध्यक्षांनी 'लोकमत'शी साधलेला संवाद असा -

सायन हॉस्पिटल

वरिष्ठ निवासी डॉक्टरांची पदे निर्माण करा

वरिष्ठ डॉक्टरांची पदे निर्माण करा, ही आमची जुनी मागणी आहे. मात्र, आजतागायत १,४३२ पदे राज्यात मंजूर करण्यात आली नाहीत. पदव्युत्तर शिक्षण पूर्ण झाल्यानंतर तुम्हाला जर एखाद्या महाविद्यालयात सहायक प्राध्यापकाची नोकरी करावयाची असल्यास एक वर्ष वरिष्ठ निवासी डॉक्टर म्हणून काम करावे लागते. प्रशासनने ही पदे निर्माण केली तर याचा फायदा निवासी डॉक्टरांना होईल; मात्र अनेकदा निवेदन देऊन तोंडी बोलून झाले तरीही काही फायदा पडला नाही.

- डॉ. पंकज डगे

केईएम हॉस्पिटल

राहायला चांगली जागा द्या

निवासी डॉक्टरांच्या वसतिगृहाचा प्रश्न गेली अनेक वर्षे आहे. निवासी डॉक्टर दोघात, मिळेल त्या खोलीत राहतात. अनेकवेळा याबाबत डॉक्टर संघटना प्रशासनाला माहिती देते, मात्र त्याचा कोणताच तोडगा निघत नाही. हे डॉक्टर एमबीबीएस उत्तीर्ण डॉक्टर आहेत. ते पदव्युत्तर डॉक्टर त्यांना राहायला विमान घालली जागा तर द्या. ते दिवस-रात्र रुग्णालयात काम करत असतात; मात्र त्यांच्या राहण्याची निवास व्यवस्था कशी आहे याचे कोणाला काही पडलेले नाही.

- डॉ. सचिन पाठोवा

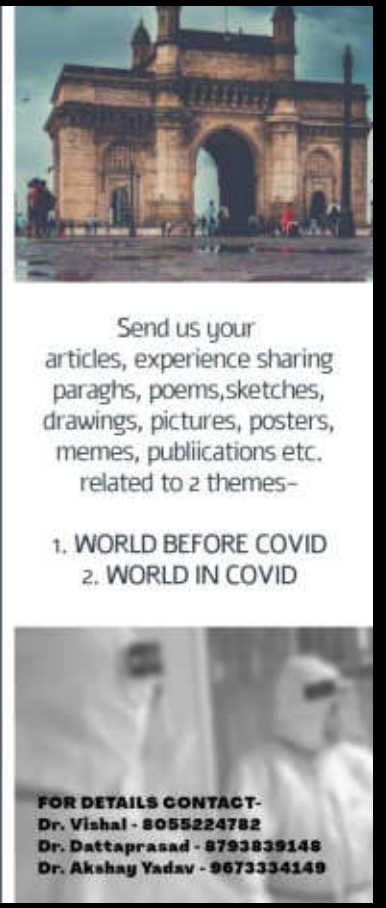
Sucessful Protests!

Meeting with Higher authorities regularly!


TOPIWALA NATIONAL MEDICAL COLLEGE
विद्या नो रुग्विमुक्तये
बृहन्मुंबई

Creating opportunities at National level!

Extra curricular activities!



Social activities!

Follow us on social media!

- https://twitter.com/BmcMard?t=hcnj51JNWdfkreK7pXjKJw&s=08
- https://instagram.com/bmc_mard_official?igshid=NTdlMDg3MTY=
- https://www.facebook.com/BMCMARD?mibextid=ZbWKwL

TOPIWALA NATIONAL MEDICAL COLLEGE & B.Y.L.NAIR HOSPITAL MUMBAI.

MAHARASHTRA ASSOCIATION OF RESIDENT DOCTORS.(MARD)

DR.CHETANKUMAR ADRAT.

PRESIDENT
NAIR MARD

WHAT IS MARD?

Maharashtra State Association of Resident Doctors (MARD) is an association of resident doctors of all the government/corporation Medical colleges and hospitals of Maharashtra, India. It was formed in 1968 to address the problems faced by the resident doctors in all the Govt and Municipal Corporation run hospitals across the states by maintaining the Unity among Resident doctors of Maharashtra by standing for each and every Resident problem .

MARD association is famous for the unity and strike for genuine demands of Resident doctors.

ACTIVITIES DONE BY NAIR MARD IN LAST YEAR

01) 10 thousand hike in stipend of resident doctors.

02) 10 thousand covid incentive started in stipend of resident doctors during covid period.

03) RUNANUBAND OF RS 1,21,000/- to each resident doctor as compensation of good work during covid time.

04) Covid health insurance for resident doctors.

05)Increment of SR seats by 1432 across state

06)Started xerox centre dedicated for resident doctors in MARD OFFICE

M.A.R.D. 2022

MAHARASHTRA ASSOCIATION OF RESIDENT DOCTORS
TNMC & BYL NAIR CHARITABLE HOSPITAL MUMBAI.

GENERAL SECRETARY
DR. AMIT BHALERAO

PRESIDENT
DR. CHETANKUMAR ADRAT

VICE PRESIDENT
DR. VASUNDHARA SINGH
DR. SAGAR GAWALI
DR. SUDHIR DHANAGE
DR. SHARAD SABALE

ADVISORY COMMITTEE
DR. NILESH KALYANKAR
DR NEELKAMAL MESHRAM
DR MADHURA PATIL
DR ANIRUDDHA PHADKE
DR MAITREYEE ATHAVALE

JOINT SECRETARY
DR. CARA SALDHANA
DR. AMOL NAGRE
DR. RAJENDRA HABIB
DR. BHAGYASHREE DONGRE
DR. ANEESHA PANDA

TREASURER
DR LUMBINI DEBAJE
DR. APURWA BHOJRAJ
DR. NIKHIL SHIRURE

LADIES REPRESENTATIVE
DR. HARSIMRAN KAUR
DR. AAKARSHA SAHAY
DR. SAYALI MUSMADE

MEDIA SPOKES PERSON
DR. ABHI KOTHARI
DR. SNEHIL SINGH

HOSTEL SECRETARY
DR. KEDAR MAHAJAN
DR. SUDARSHAN SHEJWAL
DR AZMAT MOMIN

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DR. JAY JOMALKAR
DR. AKSHAY RASAVE
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DR ISHIR BORKAR

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DR. ABHIJEET SHILEDAR

SPORTS SECRETARY
DR. VIKAS SOLANKHI
DR. NILESH KALE
DR. VARDHAMAN ROTE

ANTIRAGGING MEMBERS
DR CHETANKUMAR ADRAT
DR AMIT BHALERAO
DR. VASUNDHARA SINGH

THANK YOU….!!!!

TOPIWALA NATIONAL MEDICAL COLLEGE, CENTRAL LIBRARY

MR.ARVIND J.DANDALE

CHIEF MEDICAL LIBRARIAN

B.SC., M.Lib.sc., M.A.

ADDRESS:
B.Y.L.NAIR CH. HOSPITAL
T.N.MEDICAL COLLEGE
DR. A.L.NAIR ROAD, MUMBAI CENTRAL,
MUMBAI-400 008.

TEL: 23027150, 23027188, 23087309
EMAIL: tnmclibrary@rediffmail.com


SILENCE
LIBRARY
Samsung Triple Camera
Shot with my Galaxy M21


Samsung Triple Camera
Shot with my Galaxy M21

LIBRARY HISTORY

In the month of October 1946, Library was housed in a single room measuring 540 sq. ft. It contained books and Journals were stored in 20 wooden cupboards. Now after 75 years Library is now with an area of 10,830 sq. ft. with collection more than 41107 books and 25835 bound volume of journals and other resources are available.

We subscribed 207 journals yearly i.e.

National : 17 print

International : 100 Print Journals & 90 e-journals

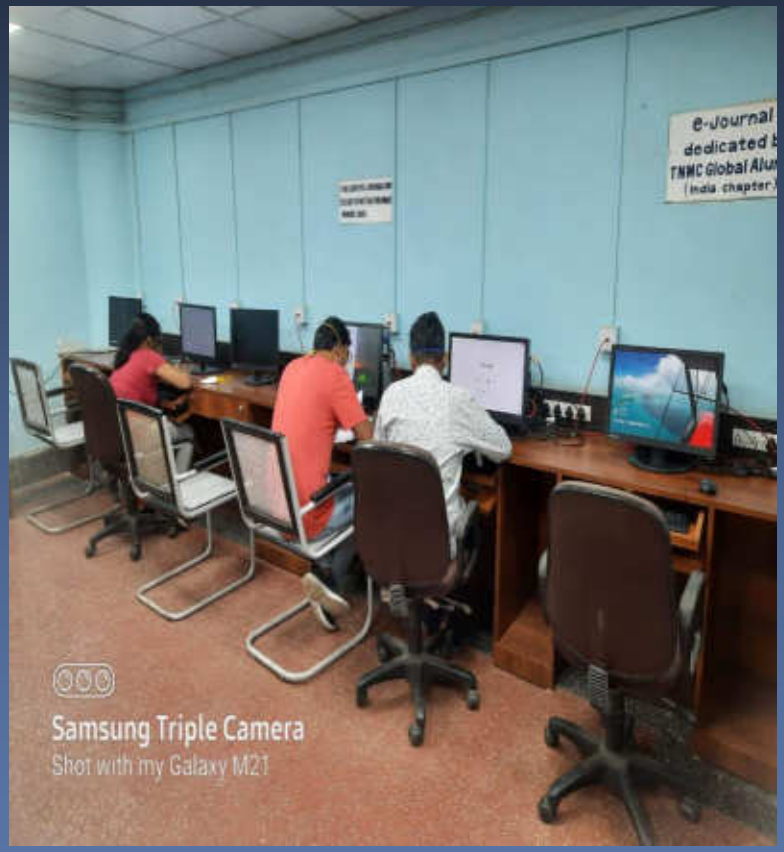
SERVICES offered by Central Library are as follows

Library facility is available only against Valid Identity Card.

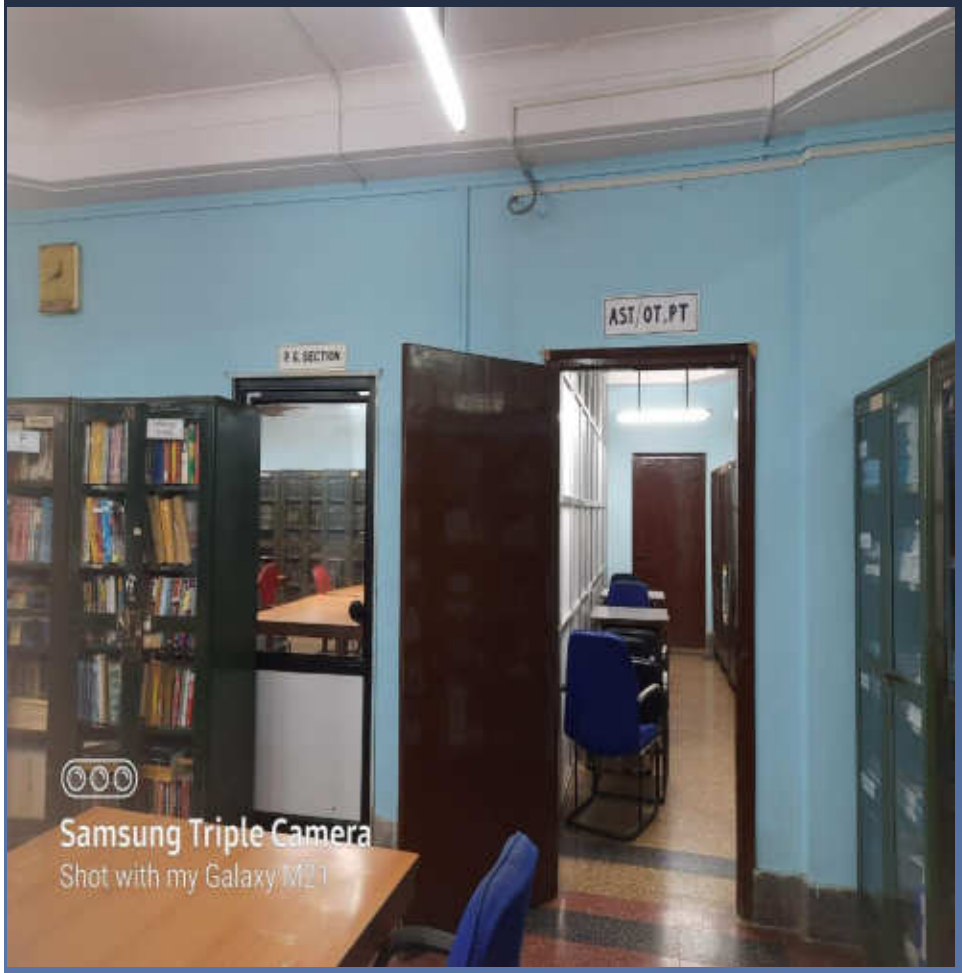
Our library is air-conditioned since 1979.

Library Services-

1) Free Computer and Internet Service to all.
2) Electronic Journals, e-books (PROQUEST PACKAGE[Full Text] & BMJ Online journals , BMJ Case Reports , Wiley online journals, Ovid online journals, MUHS Digital Library Online Journals), UpToDate Database & Clinical Key.
3) CD Library- TV/VCR/Audio & Video Tapes
4) Xerox & Colour Xerox Facility
5) Scanning, Lamination & Spiral Binding
6) Interlibrary Loan
7) Reference Services
8) Thesis references
9) 24 hours Reading Room for UG / PG Students
10) Home lending facility for PG students 1 book & 1 journal (loose Issue) for the period of 15 days.
11) Departmental Library


e-Journal
Samsung Triple Camera
Shot with my Galaxy M21


Samsung Triple Camera


ASST/OT.PT
P.G. SECTION
Samsung Triple Camera
Shot with my Galaxy M21


Samsung Triple Camera
Shot with my Galaxy M21


24 HOURS READING ROOM
DR. S. G. DAMLE
GUESTS OF HONOUR
DR. W. B. TAYDE
DR. N. A. KSHIRSAGAR
DR. M. E. YEOLEKAR
DR. P. H. SHINGARE
DR. S. N. OAK
Samsung Triple Camera
Shot with my Galaxy M21

Library Timings :

- Weekdays 08.30am. to 10.00pm.
- Saturdays 08.30am. to 7.00pm.

Home Lending and Counter Issuance :

- Weekdays 08.30am. to 09.00pm.
- Saturdays 08.30am. to 6.00pm.

Thesis and Incomplete Journals :

- Weekdays 11.00am. to 05.00pm.
- Saturdays 12.00am. to 02.30pm

Xerox Timings:

- Weekdays 09.00am to 06.00pm.
- Saturdays 09.00am to 05.00pm.
- Charges will be Re. 2 per copy
- Colour Xerox charges Rs.8/- per copy

Library Committee :

- Dr. Pravin Rathi- Chairman
- Dr. Satish Dharap- Member
- Dr. (Smt) C.S. Nayak- Member
- Dr. (Smt) B. Hathiram- Member
- Dr. R. Nerurkar- Member
- Dr. D. Shetty- Member
- Dr. Sanjay Swami- Member
- Dr. Sumedh Sonavane- Member
- Dr. (Smt) Henal Shah- Member
- Dr. Niraj Mahajan -Member
- Shri. Arvind Dandale- Secretary

Our staff Members as follows :

- Mrs. Harshali B. Bhalerao –Junior Librarian
- Mr. Shantaram M. Joshi – Library Assistant
- Mr. Kishor K. More – Record Assistant
- Mr. Unmesh M. Mudras – Record Assistant
- Mr. Anil N. Yadav – Record Assistant
- Mr. Sachin C. Sonawadekar – Store Assistant
- Mr. Pramod K. Yelwe – Library Attendent
- Mr. Pandurang B. Patil _ Library Attendent
- Mr. Vijay Gosavi - Library Attendent
- Mr. Subhash S. Bhosale – Library Servant
- Mr. Rajendra N.Shinde- Library Servant
- Mr. Mahesh M. Surve – X-rox Operator
- Mr. Saurabh U. Birje _Xerox Operator

THANK YOU

Biomedical Waste Management

Nair Hospital Infection Control Committee

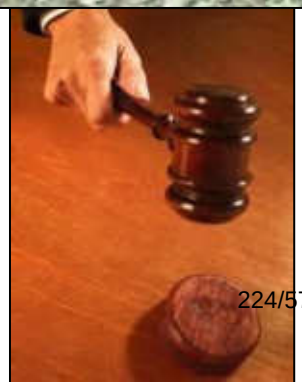
What is biomedical waste?

- Any waste, which is generated during
  - Diagnosis
  - Treatment
  - Immunization of human beings or animals
  - In research activity
  - Health camps

Why BMW Management?

- Potential health hazard to
  - Patients , Patient's relative
  - Health care workers
  - Environment
- Sharp Injuries to collectors or transporters
- Health hazard to rag pickers
- Prevent reuse of disposable items
- Prevent outbreaks of infections

- **Separate noninfectious waste from infectious waste**

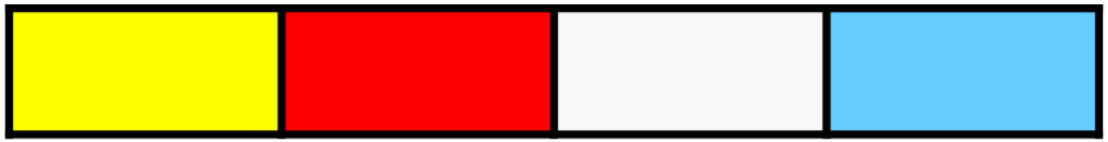


Who is responsible for BMWM?

All persons who

- Generate
- Collect
- Receive
- Store
- Transport
- Treat
- Dispose or
- Handle biomedical waste in any form

BIOMEDICAL WASTE MANAGEMENT RULES 2016 with Amendments



SCHEDULE I
BMW Categories and their segregation, collection, treatment, processing and disposal options

Category	Type of waste	Type of Bag/ Container	Treatment and Disposal options
Yellow 	(a) Human anatomical waste - Human tissues - Organs, body parts - Fetus below viability period (as per MTP Act 1971)	Yellow coloured non-chlorinated plastic bags	Incineration or Plasma Pyrolysis or deep burial

SCHEDULE I

BMW Categories and their segregation, collection, treatment, processing and disposal options

Category	Type of waste
Yellow 	(b) Animal anatomical waste - Experimental animal carcasses - Organs, body parts, tissues
	(c) Soiled Waste - Items contaminated with blood, body fluids (Dressings, plaster casts, cotton swabs, bags containing residual/ discarded blood and/or components)

SCHEDULE I
BMW Categories and their segregation, collection, treatment, processing and disposal options

Category	Type of waste	Treatment and Disposal options
Yellow 	(d) Expired or Discarded Medicines - Antibiotics - Cytotoxic drugs - Glass or plastic ampoules, vials etc. contaminated with cytotoxic drugs	- Cytotoxic drugs returned back to manufacturer - All other discarded medicines either sent back to manufacturer or disposed by incineration

SCHEDULE I

BMW Categories and their segregation, collection, treatment, processing and disposal options

Category	Type of waste	Type of Bag/ Container	Treatment and Disposal options
Yellow 	(e) Chemical waste - Production of biological and used/ discarded disinfectants	Yellow coloured containers or non-chlorinated plastic bags	Incineration or Plasma Pyrolysis or encapsulation in hazardous waste treatment, storage and disposal facility

SCHEDULE I
BMW Categories and their segregation, collection, treatment, processing and disposal options

Category	Type of waste	Type of Bag/ Container	Treatment and Disposal options
Yellow	(f) Chemical liquid waste - Chemicals in production of biologicals - Used or discarded disinfectants - X-ray film developers - Formalin - Infected secretions/ body fluids - House keeping liquids	Separate collection system leading to effluent treatment system	liquid waste shall be pre-treated before mixing with other waste water

SCHEDULE I
BMW Categories and their segregation, collection, treatment, processing and disposal options

Category	Type of waste	Type of Bag/ Container	Treatment and Disposal options
Yellow 	(h) Microbiology, Biotechnology and other clinical laboratory waste	Autoclave safe plastic bags or containers	On-site pre-treatment to sterilise with non-chlorinated chemicals as per NACO or WHO guidelines and thereafter incineration

SCHEDULE I
BMW Categories and their segregation, collection, treatment, processing and disposal options

Category	Type of waste	Type of Bag/ Container	Treatment and Disposal options
Red 	Contaminated Waste (Recyclable) - Disposable items like tubings, bottles, I/v sets, catheters, urine bags, syringes (without needles), vacutainer (with needles cut), gloves	Red coloured non-chlorinated plastic bags or containers	Autoclaving or micro-waving/ hydroclaving followed by shredding or mutilation or combination of sterilisation and shredding

SCHEDULE I
BMW Categories and their segregation, collection, treatment, processing and disposal options

Category	Type of waste	Type of Bag/ Container	Treatment and Disposal options
White (Translucent) 	Waste sharps including Metals - Needles, syringes with fixed needles, needles from needle tip cutter or burner, scalpels, blades	Puncture proof, leak proof, tamper proof containers	Autoclaving followed by shredding or mutilation or encapsulation Combination of shredding cum autoclaving Final disposal to iron foundries/ sanitary landfill/ concrete waste sharp pit

SCHEDULE I
BMW Categories and their segregation, collection, treatment, processing and disposal options

Category	Type of waste	Type of Bag/ Container	Treatment and Disposal options
Blue 	(a) Glassware Broken/ discarded and contaminated glass (medicine vials, ampoules) except cytotoxic wastes (b) Metallic body implants	Cardboard boxes with blue coloured marking (Puncture proof and Leak proof boxes with blue marking)	Disinfection (by soaking the washed glass waste after cleaning with detergent and Sodium Hypochlorite treatment) or through autoclaving or microwaving or hydroclaving and then sent for recycling.

Transport to central collection room (in campus)

- Preferably by Trolley
- Fixed Timing
- Sign of supervisor in Garbage/Log book
- Don’t mix red & black bags
- Central storage for not more than 48 hours

Final disposal

- SMS Envoclean company

Infection control practices

- Environmental cleaning : dry dusting not allowed, mop: 1% Na hypo
- Universal safety precautions
- Aseptic precautions & procedures: Bundle care approach
- Sterilization & disinfection: contact time & thorough cleaned equipment
- Biomedical waste management
- Surveillance: Targeted, HAI rates, problem areas
- Antibiotic policy
- Management Accidental exposure
- Immunization: HBV

Universal Safety Precautions/ Standard Precautions

1. Hand washing
2. Personal protective equipment [PPE]
3. Preventing/managing sharps injuries
4. Aseptic technique
5. Isolation
6. Staff health including vaccination
7. Sterilization & disinfection
8. Biomedical Waste disposal
9. Management of spills

Accidental needle stick injury

1. Don’t press the area of injury

2. Allow the blood to flow

3. Just wash your hands with soap & water.

Management of parenteral or mucous membrane exposure

- Eyes:- wash well with tap water or saline
- Contact lenses:- are being used remove them before washing the eyes, disinfect the contacts and clean them before reusing
- Ingested (mouth)- Spit immediately and rinse with water many times

Accidental needle stick injury/ exposure

1. Report immediately

ART Clinic, 4th floor, OPD building (9am to 1 pm) OR

MICU, 6th floor, Hospital building (1pm to 9am)

2. ICTC, 3rd floor College building:- (9am to 4pm)

Pretest counseling

Blood sample collection- Source & HCW

Post test counseling & Report

3. Directed to ART

4. Follow up blood testing done at: 1 & a half months, 3 & 6 months

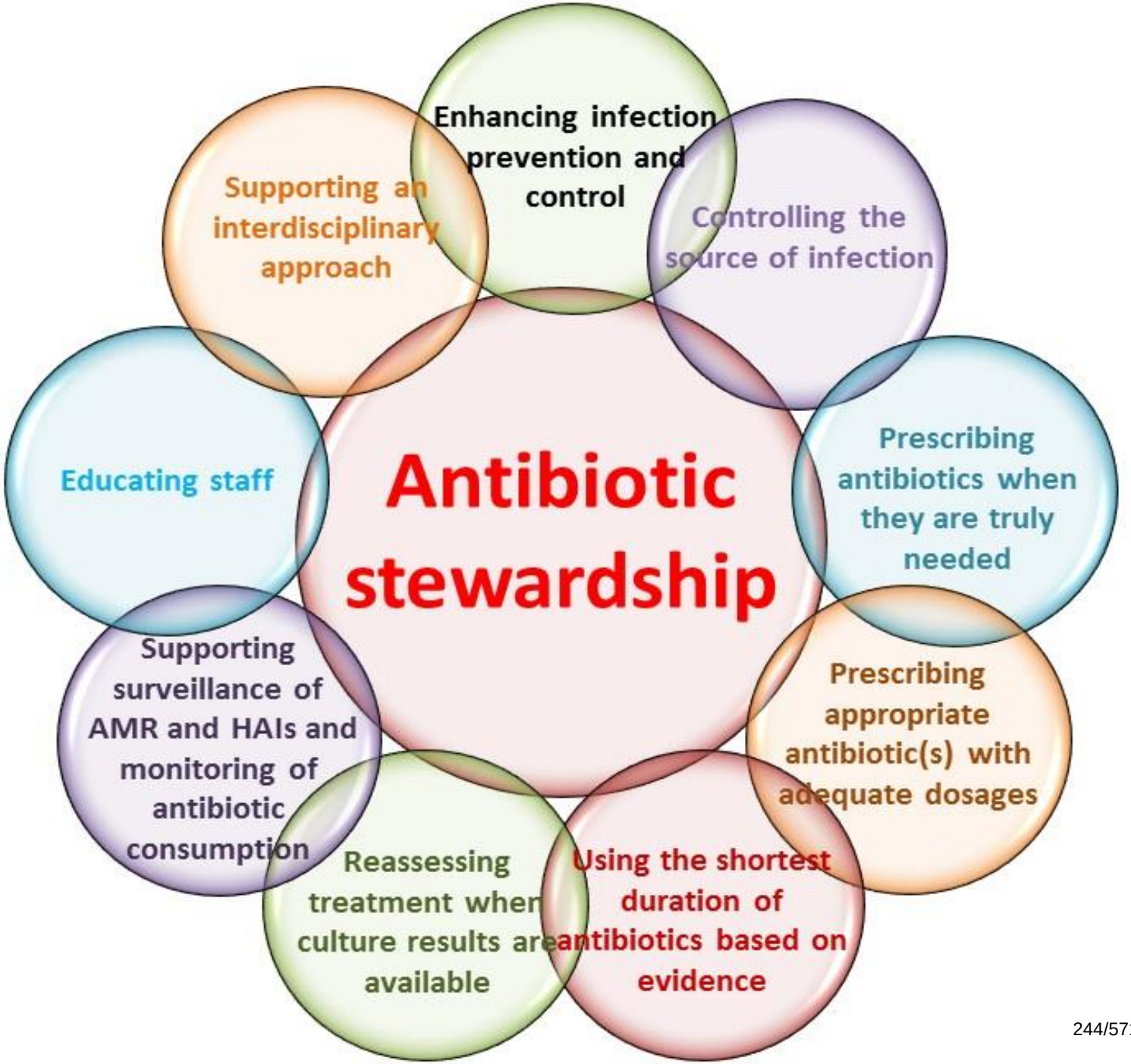
5. Recommended to start PEP at the earliest possible, preferably within 6 hours

Total duration of PEP: 28 days

Antimicrobial stewardship programme

- Involves the careful, judicious and responsible management of antimicrobial use.
- The Right antibiotic
- For the Right patient
- With the Right dose and
- The Right route causing the least harm to the patient and future patients

REF: CDC


Antibiotic stewardship
Enhancing infection prevention and control
Controlling the source of infection
Prescribing antibiotics when they are truly needed
Prescribing appropriate antibiotic(s) with adequate dosages
Using the shortest duration of antibiotics based on evidence
Reassessing treatment when culture results are available
Supporting surveillance of AMR and HAIs and monitoring of antibiotic consumption
Educating staff
Supporting an interdisciplinary approach

Thank You

HOSTEL AND ACCOMODATION

DR. NILESH K. SURYAWANSHI
ASSISTANT WARDEN PG HOSTEL,
ASSISTANT PROFESSOR,
DEPT. OF RADIOLOGY.

LOCATION AND CAPACITIES

Location	Rooms	
OPD 8th Floor 'A' Wing (Girls)	17	--
OPD 8th Floor 'B' Wing (Boys)	19	--
OPD 8th Floor 'C' Wing (Girls)	19	--
OPD 8th Floor 'D' Wing (Girls)	19	--
OPD 9th Floor 'A' Wing (Girls)	18	--
OPD 9th Floor 'C' Wing (Boys)	20	--
OPD 9th Floor 'D' Wing (Boys)	18	--
'H' Bldg.	39	--
'G' Bldg.	33 (1 HMIS)	--
NRMO	72	1 call room + 1 warden room
TOPAZ 1st & 2nd Floor	15 (2nd floor is under repair)	--
CR Bldg.	46	01 meter room 2 warden rooms One reading room One recreational room
Ghodapedo	32 (4 rooms under repair)	--
Bhajekar	8 rooms + 8 halls	--
Total	**374**	

WE NEED TO ACCOMMODATE

	2022-23	2021-22	2020-21
MD/MS	149	152	150
DM/MCH	28	25	21
Fellowship	-	18	16
MOTh	6	8	8
MPTh	10	10	10
MSLP	12	12	12
DMLT	10	10	5
Plain Posters (HO/SR), SMO	120 Approximately		
Total	**794 Approximately**		

- So we need to accommodate around **794** residents in approximately **374** rooms, sparing call rooms.

- Ghodapedo and Bhajekar hostel is mostly for SR, SMOs, HOs.

THE COORDINATING TEAM FOR HOSTEL ALLOTMENT FOR THE ACADEMIC YEAR 2022–23.

- Secretary : Dr. Surbhi Rathi,
  Professor and HOD Pediatrics
- PG hostel Co-ordinator : Dr. Sarika Patil, AMO
- PG hostel Warden : Dr. Nilesh K. Suryawanshi,
  Asst. Prof., Radiology,
- PG hostel Warden : Dr. Sachin Satpute,
  (Curry Road) Asst. Prof., Pharmacology
- PG hostel Asst.Warden: Dr. Shoaib Md,
  (Curry Road) Asst. Med. Officer

Resident Representative

- Dr. Chetankumar Adrat : JR3 Anesthesiology
- Dr. Amit Bhalerao : JR3 Anesthesiology
- Dr. Sagar Gawali : JR3 PSM
- Dr. Abhijeet Shiledar : JR3 Radiodiagnosis

PROCEDURE FOR HOSTEL ALLOTMENT

- Every resident has to collect hostel requisition form from xerox centre, Library, 2nd floor, college bldg. and submit it through department along with true copy of Identity Card & permanent address proof.

- Department has to send these forms collectively in 3 separate files batchwise to the PG clerk, PG Section College building 1st flr, TNMC. In Addition every resident need to fill and submit google form. Link of the same will be available on TNMC institute website and also circulated through whats-app.

RULES FOR P.G. HOSTEL

- Rules for PG hostel are printed on Hostel requisition form, circulated through circular to your department time to time and will also be made available on Institutional website as well as PG notice board at appropriate places.

- Herewith again mentioned for your kind perusal;

- P. G. Hostel accommodation is free and resident need not pay anything to anybody.

RULES FOR P.G. HOSTEL

- Providing residence to the resident doctors is the responsibility of the institution. However, there cannot be any provision like married accommodation.

- All hostel rooms will be allotted on sharing basis. This will be including even exam going broad specialty and all the super specialty residents.

- Exam going residents will be given preference over non-exam going residents.

- There will be no preferences of any particular branch over other, and the general allotment policy till now will be adopted. Retaining the rooms of the concerned departments, will be tried to the best possible extent in order to ease the process of allotment.

- Registered candidates will be given a preference over non-registered candidates (HO/ SR).

- Regarding accommodation for SMOs /SSMOs, as at present administration is not bound to provide them accommodation by virtue and nature of their post.

- On call rooms have been provided at Anand Bhawan.

- Allotment will be done on an unanimous decision by the hostel committee Exam going residents should vacate the rooms within 10 days of their last practical examination, of MUHS. Residents are instructed to hand over room key to respective warden before leaving premises.

- The allotment list to be displayed on Dean Office's notice board and one copy will be kept with respective warden. The PG Hostel list will be updated as and when required and maintained by the warden.

- Resident who is not following/ obeying hostel rules, giving false information to the warden and if found guilty will be severely punished in the form of expulsion from the hostel temporarily or permanently.

- Every resident doctor staying in hostel is required to intimate warden about the resignation/ termination/ long leaves / maternity leave or any other leave of absence.

- While shifting from one room to another, shifting of furniture will not be permitted and if anything needed to be scraped it should be brought to the notice of the warden and due procedure to be followed.

- Substance abuse is strictly prohibited in hostel and hospital premises.

ELECTRICAL APPLIANCE USAGE

- Electrical appliance usage in the hostel is not permitted and electrical appliances if found, during the round, those items will be confiscated and the said resident will be expelled from the hostel.

- The hostelite will take care to switch off lights, fan, Geyser etc. when not in use.

- Personal Refrigerator and TV not permitted.

- Resident need to strictly follow the allotment list. Mutual exchange of rooms only with prior approval with concerned authority will be allowed, failing to which, will be considered as violation of hostel rules and will be liable for severe action in the form of expulsion from the hostel.

- Residents belonging to faculty which do not demand their presence on duty after evening hours and residing in the suburbs of Mumbai will be given rooms only if available and approved by the undersigned with HOD's recommendations.

- Allotment of the room will be null-void, if the resident fails to take the possession of allotted rooms within 10 days of allotment.

- Problems if faced any, during the shifting should be immediately brought to the notice of the warden within the stipulated time.

- Rooms allotted to the specific individual in the given framework of rules will also imply taking orderly and the reasonable care of fittings and fixtures & no alterations of any nature shall be carried out or undertaken without prior intimation /written permission of the competent authority.

- Outsiders / relatives/ spouse/ pets etc. will not be allowed in the hostel rooms as it is a security and health hazards and responsibility will be fixed upon.

- Maintaining the cleanliness of the room will be the sole responsibility of the occupant of the room.. However, the cleanliness will be done by duty servant/ personnel appointed for maintenance / housekeeping purpose. Resident's co operation is ordered.

- Males will not be allowed (including doctor, colleague, relatives etc.) in the female hostel wings i.e. 8th floor - A, C, D and 9th floor - A wing.

- No Dabewala, Newspaper boy, Milkman, courier boy, pizza boy etc. will be allowed inside female wings. Resident doctor has to collect all the deliveries at the entrance only. Any resident not complying should be reported.

- Rooms with unreasonably high electricity bills are inspected and if any electric appliances are found such as AC/Microwave/heating coil/cooking coil, etc.. Appliances will be confiscated and resident will be expelled from the hostel.

For Hostel related queries you can contact following

- Dr. Sarika Patil- PG Hostel Co-ordinator, 9763860754.
- Dr. Nilesh K. Suryawanshi - Warden PG - Department of Radiology, 8779674527.
- Dr. Sachin Satpute Warden Curry Road hostel- Asst. Prof., Department of Pharmacology, College building, Second floor, 9967239603.
- Dr. Shoaib M – Asst. Warden Curry road hostel - Casualty as per duty shift, 8208623177.

ZERO TOLERENCE TO RAGGING

RAGGING

IS A CRIMINAL OFFENCE

Do not "RAG"

Also don't be a mute witness to

RAGGING

- Ragging in any form in premises will be delt severely and punished as per the law.

- There are frequent regular and surprize hostel rounds by anti ragging squads.

Mess and recretional facilities

- We Have different canteens in premises for food, such as Central Canteen, Kamgar Canteen, Choice Snacks Bar etc.
- In addition there are various tiffin and snacks providers.
- We have recreational facilities at Curry road hostel and 8th floor OPD building.

OFFICIAL TIMING TO MEET WARDEN

- Except for Emergency, you can meet warden on mentioned places at 3 to 4pm, from Monday to Friday at respective places.

- For any issues related to electricity and lifts, residents have to directly contact the engineering department which is situated in the college building besides BCR.

- For any issues related to plumbing, drainage and wall or ceiling leakage, residents have to directly contact the Civil department which is situated in the college building besides AMO office (Room no. 22).

- For cleaning related issues have to contact the TK office which is situated beside NRMO building.

PLEASE NOTE:

- Please note warden's post is additional responsibility to the person and should be treated as honorary and given due respect for their selfless duty.

- Don't call them unnecessary, just to ask .. where are you? I am not finding your place, etc...


thank you

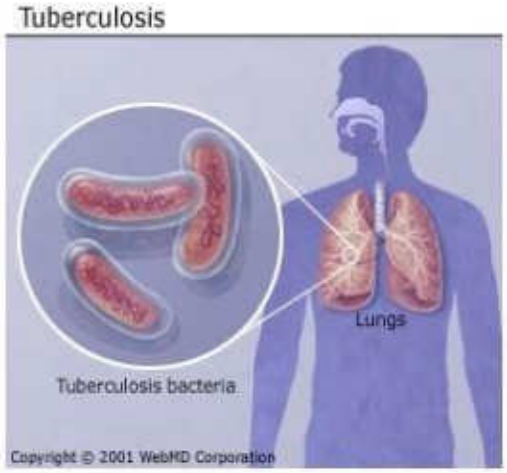
NTEP

(National Tuberculosis Elimination program)

Pulmonary Medicine

THE EPIDEMIOLOGY : Agent, Mode of Transmission, Prevention

Caused by **Mycobacterium tuberculosis**

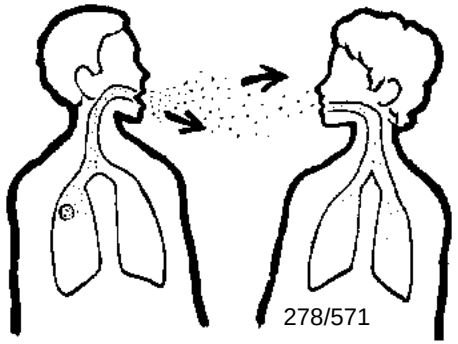


Pulmonary 80% Extra pulmonary 20%

(all parts excepts nails &hair)

- Source of infection- **Human case whose sputum is positive for tubercle bacilli ,**Persons who cough

Airborne transmission thru infectious droplet nuclei Coughing Sneezing



Pulmonary Tuberculosis

- Clinical aspects
- Notification of all suspects and cases
- NTEP OP, OPD no. 25, ground floor
- NTEP referral with file
- Eg Sputum tests, other samples for tests, initiation of therapy, ADR, etc..
- Ni-kshay

Symptoms

1. Cough with expectoration

2. Evening rise of temperature

3. Loss of weight

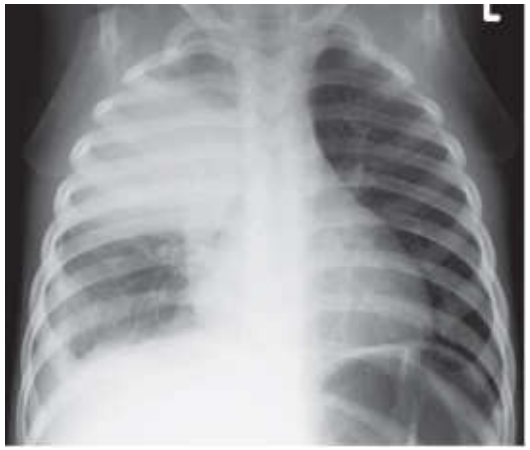
4. Loss of appetite

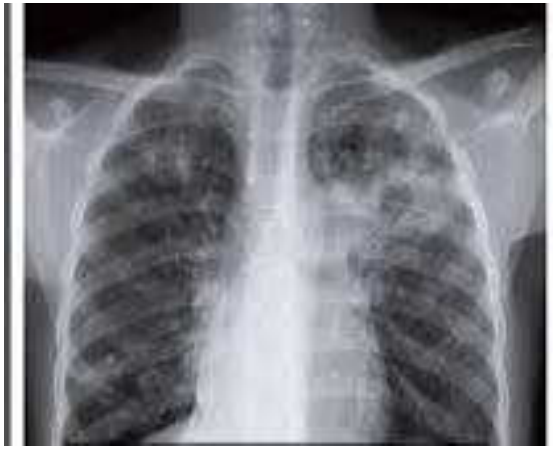
5. Pain in chest

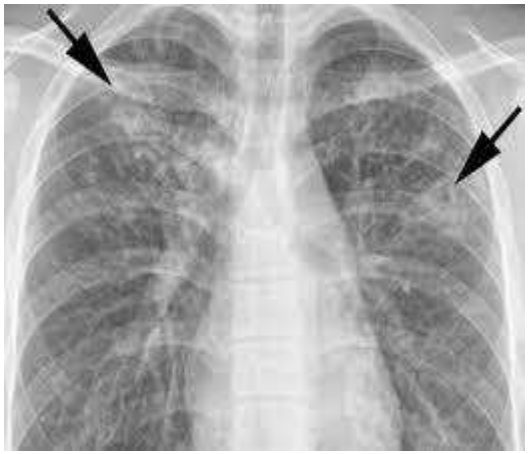
6. Night sweats

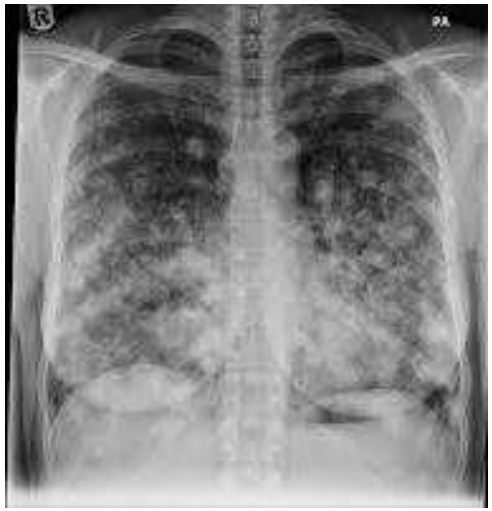
7. Blood in sputum(Haemoptysis)

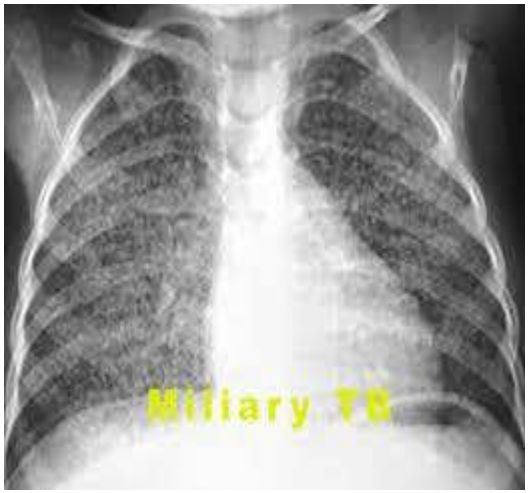
CHEST RADIOGRAPH

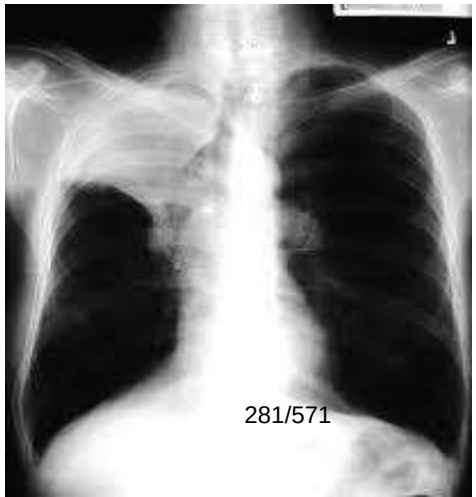












Extra-Pulmonary TB & Paediatric Suspects

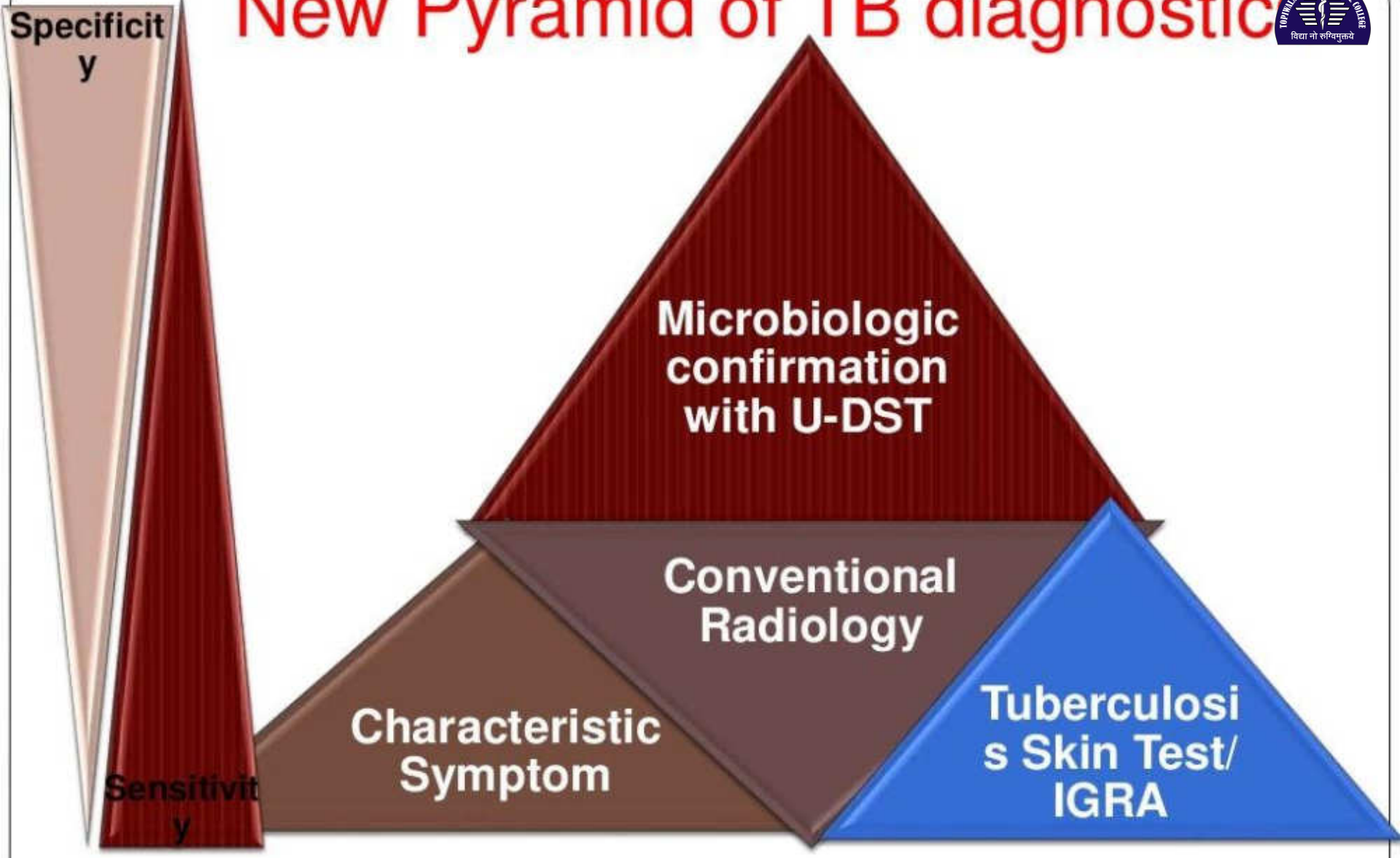
- Extra-pulmonary TB -general symptoms like weight loss, fever with evening rise and night sweats.
- Other symptoms depend on the organ affected.
- Paediatric TB suspect:

  - Fever and/or cough of 2 weeks

  - Loss of weight/no weight gain –Failure to thrive.

  - History of contact with suspected or diagnosed case of active TB (Family history and contact tracing of case is important in paediatric patients.)

New Pyramid of TB diagnostic



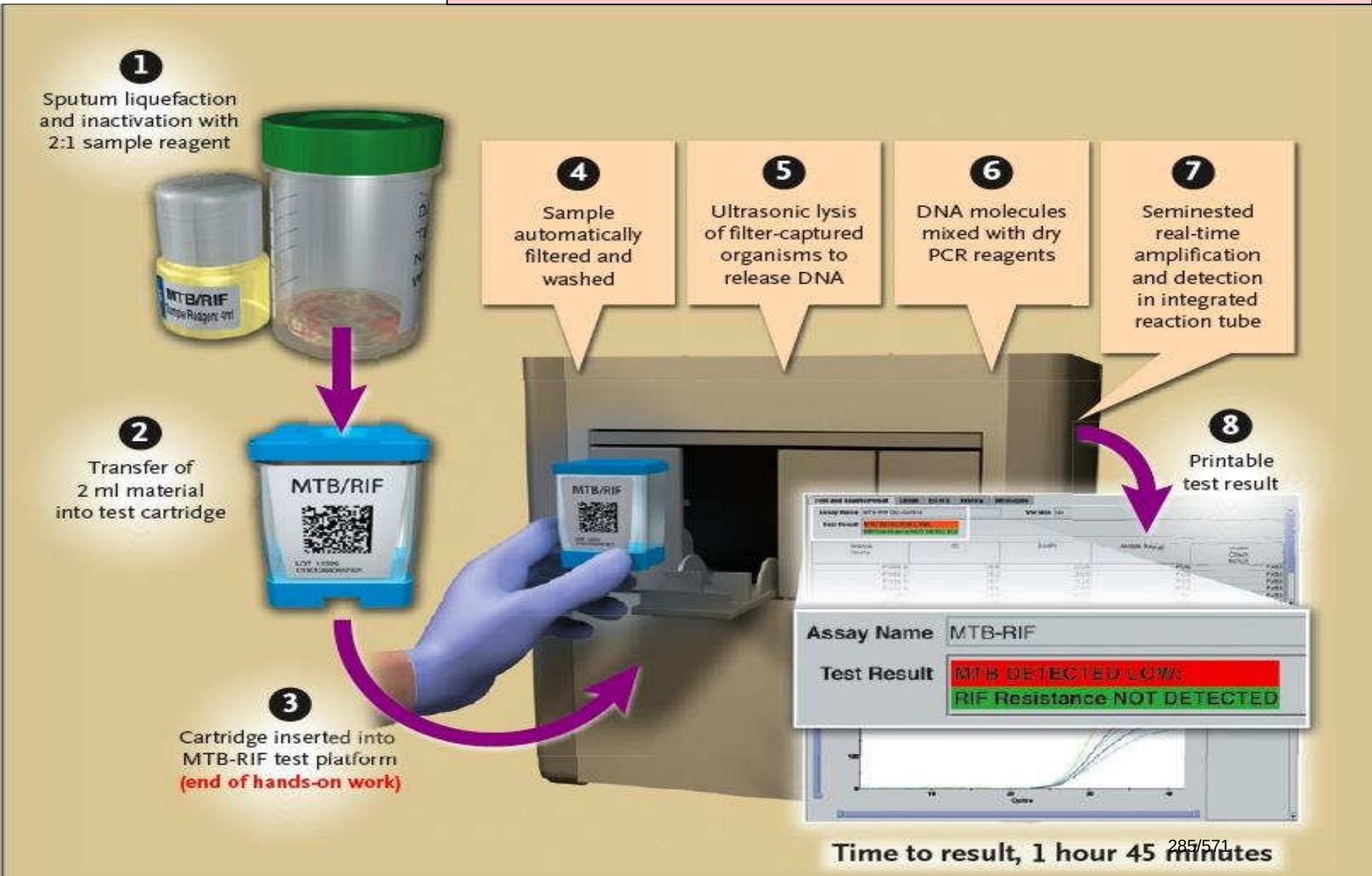
Yield of test and robustness of diagnosis can be improved by better characterisation of symptoms and interpretation of radiology!!

- Upfront NAT- Genexpert/Trunat
- AFB smear for FU
- AFB culture as a backup in all precious samples

Sputum Smear Microscopy (for AFB)	Culture	Rapid Molecular diagnostic testing
- Zeihl -Neelson Staining - Fluorescent Staining	- Solid (LJ) media - Liquid Culture System	- Line Probe Assay - CBNAAT/TrueNat/Ultra NAAT

GeneXpert

SITES:Dharavi, Govandi, Kurla, Kandivali, GTB Hospitals, KEM h



Hinduja & GTB Hospital LAB MGIT

LJ +ve Tubes

MGIT 960 instrument

MGIT +ve tubes

EBTB : Important considerations

- These are pauci-bacillary tuberculosis
- THEY ARE NOT INFECTIOUS
- Attempt should always be made to get sample for microbiology
- Supportive investigations play a role e.g. TST, ADA in case of pleural effusions, ascites, CSF, etc
- Diagnosis is by clinical , radiological, histopathological and microbiological amalgamation

DIAGNOSIS OF TB

- ALWAYS INSIST FOR MICROBIOLOGICAL EVIDENCE
- ENSURE THAT SAMPLE EITHER PULM ONARY OR EXTRAPULMONARY IS SUBMITTED FOR CBNAAT AND AFB SMEAR AND CULTURE
- ROUTE THE SAMPLE TO NAIR MICROBIOLOGY DEPARTMENT THROUGH NTEP WITH PROPER REFERRAL PROTOCOL

Treatment of DS TB

- **TB counselling paramount importance**
- **NTEP registration and referral**
- **NTEP OPD no 25 in Nair hospital**
- Correct drugs, correct combination, correct Doses, correct supervision
- Daily regimen, FDC, Weight adjustment, Addition Of ethambutol in CP, NO CATEGORIES
- Regime: 2 HRZE + 4 HRE
- Break the MYTHS… ~~SPECIAL DIET, BED REST REST , ISOLATION~~

4FDC


24 x 28 Tablets
Rifampicin, Isoniazid, Pyrazinamide and Ethambutol Hydrochloride Tablets U.S.P.
Each film coated tablet contains:
Rifampicin U.S.P 150 mg
Isoniazid U.S.P 75 mg
Pyrazinamide U.S.P 400 mg
Ethambutol Hydrochloride U.S.P. 275 mg
Approved colours used.
Store below 25°C, protected from excessive humidity.
Protect from light.
Dosage : As directed by the physician.
Keep out of reach of children.

3FDC


24 x 28 Tablets
Rifampicin, Isoniazid and
Ethambutol Hydrochloride Tablets
Each film coated tablet contains :
Rifampicin U.S.P. 150 mg
Isoniazid U.S.P. 75 mg
Ethambutol Hydrochloride U.S.P. 275 mg
Approved colours used
Store below 25°C, protected from
excessive humidity.
Protect from light.
Dosage : As directed by the physician.
Keep out of reach of children.

Daily Dose Schedule for Adults (as per weight bands)

Weight band	Number of tablets		Inj. Streptomycin
	Intensive phase	Continuation phase	
	HRZE	HRE	
	75/150/400/275 mg	75/150/275 mg	gm
25-39 kg	2	2	0.5 gm
40-54 kg	3	3	0.75 gm
55-69 kg	4	4	1 gm*
≥70	5	5	1 gm*

Dose to be adjusted by treating physician in individual cases if required

Follow up of Treatment

Clinical

- [ ] Monthly
- [ ] Symptoms
- [ ] ADR
- [ ] Weight
- [ ] Comorbidity
- [ ] CXR*

Laboratory

- [ ] Smear microscopy
- [ ] Culture
- [ ] DST*
- [ ] Investigation for ADR*
- [ ] Investigation for comorbidity*

* *If required*

Presumptive DRTB cases

- Refer to chest med
- Refer to NTEP for diagnosis
- No empiricism in DR-TB

- THANK YOU

COMMUNICATION SKILLS

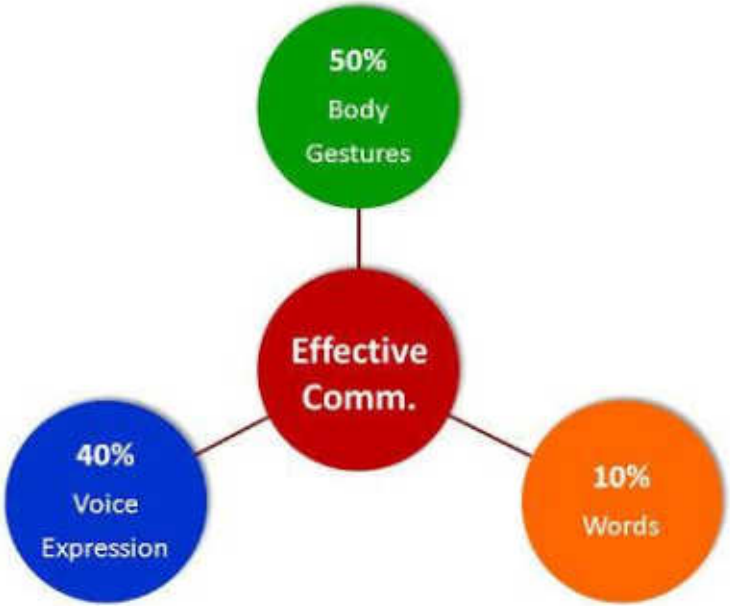
- DR. ALKA A. SUBRAMANYAM
- DEPT OF PSYCHIATRY
- TNMC & BYL NAIR CH. HOSPITAL

SCENARIO #1

- This is your first posting in a MICU. Your registrar posted with you expects you to fill all the files and assess all the patients and report their status to him in one hour.
- The relative of one patient is a medico and he is asking you questions regarding aspects of the patients management at least 10 times a day.
- **How will you manage both these aspects?**

The Four Communication Skills

Key Components of Effective Communication

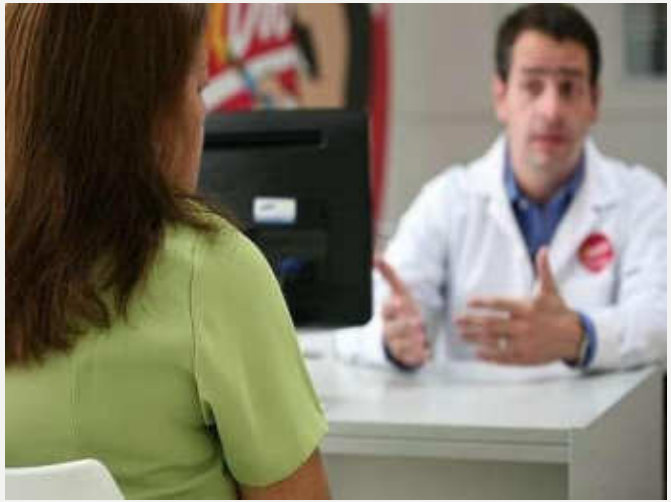



It should be an open and clear communication in a comfortable environment

Number of words spoken

Distance clinician sits from patient

Angle clinician holds her head



If the clinician nods or frowns

If the clinician smiles or touches the patient

SCENARIO #2

You are working in the very busy and high intensity with 2 of your colleagues on night duty. There have been an increase of patients post Ganpati and the ward is full and very busy. However, the only other doctor with you on the floor is known to be very careless and a “kamchor”. You both of you have to keep seeing patients in the other 2 wards too.

What will you do in such a situation?


High
Importance of achieving goal
Low
Competing
One party seeks to satisfy interest regardless of impact to other party
Collaborating
Both parties win
Compromise
Both parties win and give up something
Avoiding
One or both parties seek to suppress the conflict
Accommodating
One party yields the win to the other party
Importance of relationship
Low
High

HOW TO COPE WITH A LAZY COWORKER

1. Don't let your feelings fester
2. Be more assertive
3. Offer some guidance
4. Be dispassionate
5. Talk to someone
6. Don't gossip
7. Don't enable them
8. Keep a good attitude
9. Talk to your manager
10. Keep documentation

PROJECTMANAGER

IT IS ALSO USED IN:

Interpersonal communication

Organizational communication

Health communication (of course!)

SCENARIO #3

Your colleague and you absolutely cannot get along. She never adjusts duties, is a very serious person, and gets irritated when you joke. In fact, she hardly talks. You talk more to the mama and mausi there. And you have to spend 3 months in this situation.

What will you do in this case?

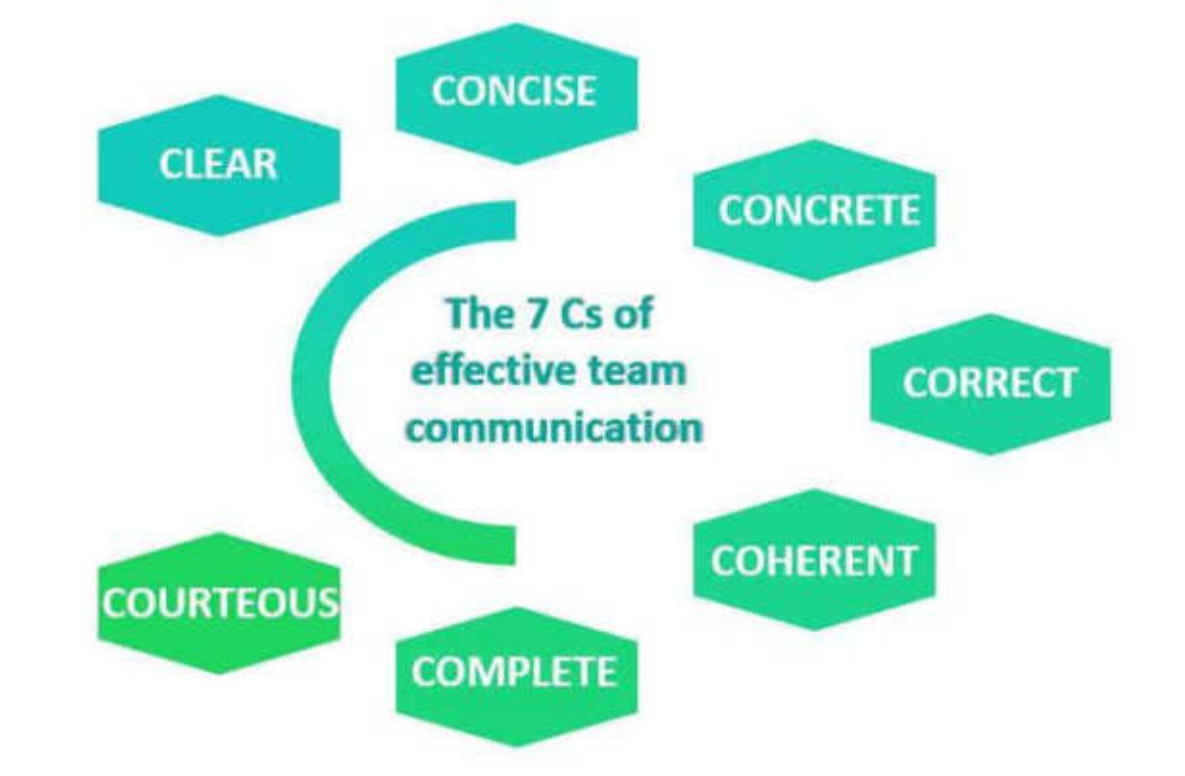

01
Listening
Strong observational skills to fully understand the message being conveyed
02
Non-verbal Communication
Body language like posture, gestures and eye movement
03
Being Clear
Choosing the right words to deliver a message that's easy to understand
04
Being Concise
Using fewer, well-chosen words to convey your message
05
Being Confident
The right message with the appropriate non-verbal communication
06
Being Personable
A friendly tone and a simple smile can go a long way


Fear of Challenge of Authority
Lack of Incentives
Less faith on Subordinates
Personal Barriers
Unwillingness to communicate

SCENARIO #4

It is about 2:00 am and you are in the trauma ward. So far it has been a busy night, you've hardly had time to sit down. There is one relative who keeps bothering you with questions about his patient, who though serious is now relatively stable(it was a case of RTA). You are tired, and you still have 2 new patients to re-assess. You fire him and tell him to go out and not disturb you. He comes back with some local corporator and a bunch of his cronies. They start threatening you and demand an explanation from your superior too. You are scared, but also realize it is best to quickly diffuse the situation

What will you do in such a case?


CONCISE
CLEAR
CONCRETE
The 7 Cs of effective team communication
CORRECT
COHERENT
COURTEOUS
COMPLETE

DO NOT HOWEVER….

Patient’s expectations of medical encounters are not always fulfilled

PATIENTS DESIRE

INCREASED PARTICIPATION AND INFORMATION SHARING

THERE ARE SIGNIFICANT GAPS BETWEEN THE INTENDED MESSAGE AND THE MESSAGE RECEIVED IN PHYSICIAN-PATIENT COMMUNICATIONS


INTENTION
Why communicate?
MESSAGE
What's the message?
PERSON
Who is the receiver?
ACTIVATE
Engage the receiver?
CLARIFY
Message understood?
TRANSFORM
Transform words into results.
Communicating with
IMPACT™

SCENARIO #5

There is a 8 year child you've been treating for tuberculosis-pulmonary and meningeal. They family is a poor family from the village, and the delay in bringing their only son to you was mainly due to lack of finances and poor knowledge of available treatment modalities. The child survived a spate of status epilepticus and hemoptysis. He is better now and has started moving around and playing with the other children. You have a soft corner for him, since you've been seeing him for about 1 month.

You receive a call from the sister on call, who's frantic, and asking you to come as he has had a severe bout of hemoptysis.

You instruct a stat transfer to the ICU and reach there, and in the meantime he starts convulsing again. You try your best efforts, medically and resuscitative, but the child does not survive.

How will you deal with the relatives?


Breaking Bad News in the ED
SETTING
✔Social Worker
✔ Minimize Distraction
✔Sit Down
KNOWLEDGE
✔Be direct
✔Use plain language
PERCEPTION
✔ What do they know so far?
EMPATHY
✔ Keep Your Cool
✔Safety First
INVITATION
✔ Break it down, a little at a time
SUMMARY
✔ Reiterate Patient Wishes

The SPIKES protocol elements

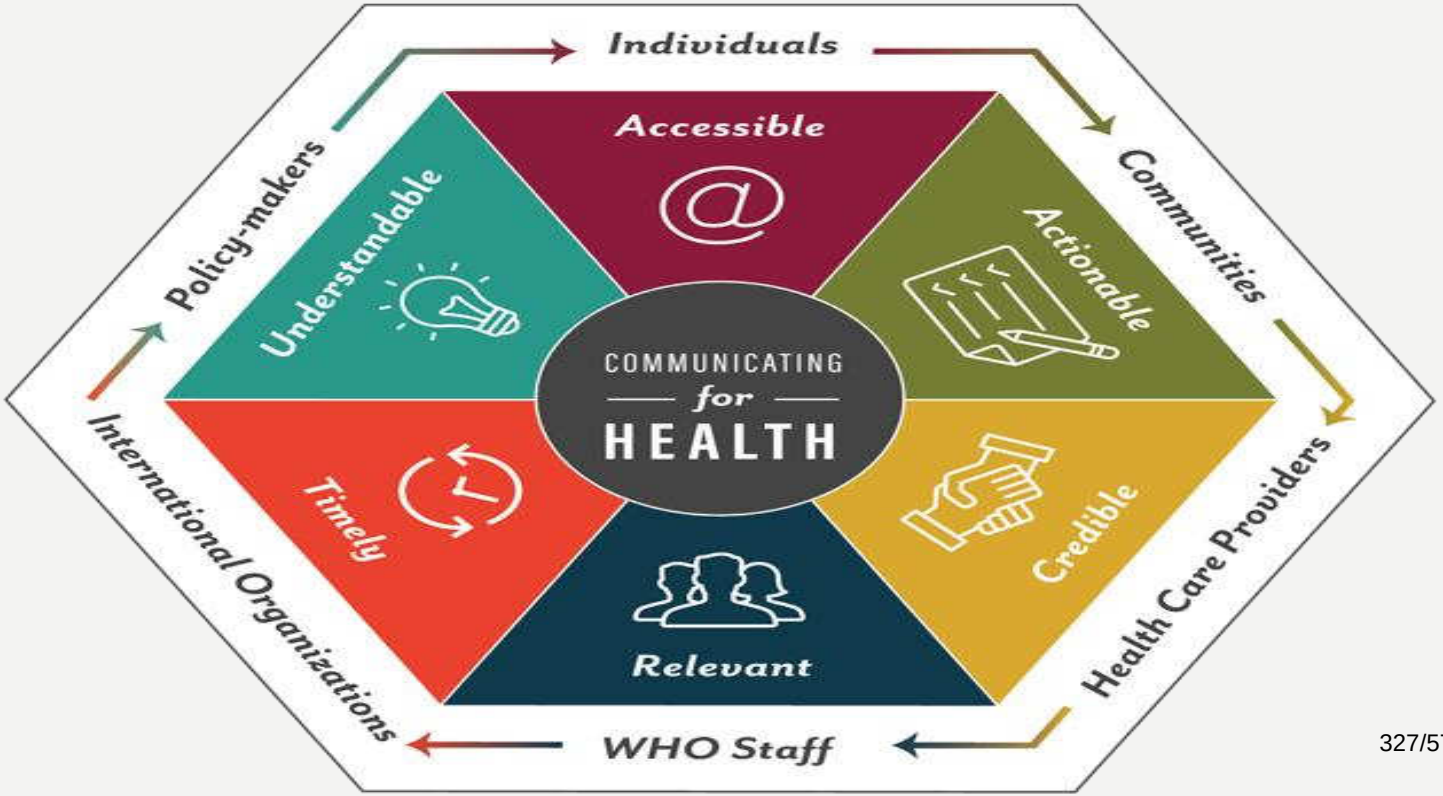
S	**S**etting up the interview
P	Assessing the patient's **P**erception
I	Obtaining the patient's **I**nvitation
K	Giving **K**nowledge and information to the patient
E	Addressing the patient's **E**motions with empathetic responses
S	**S**trategy and summary

Source: Oncologist. 2000;5(4):302-11

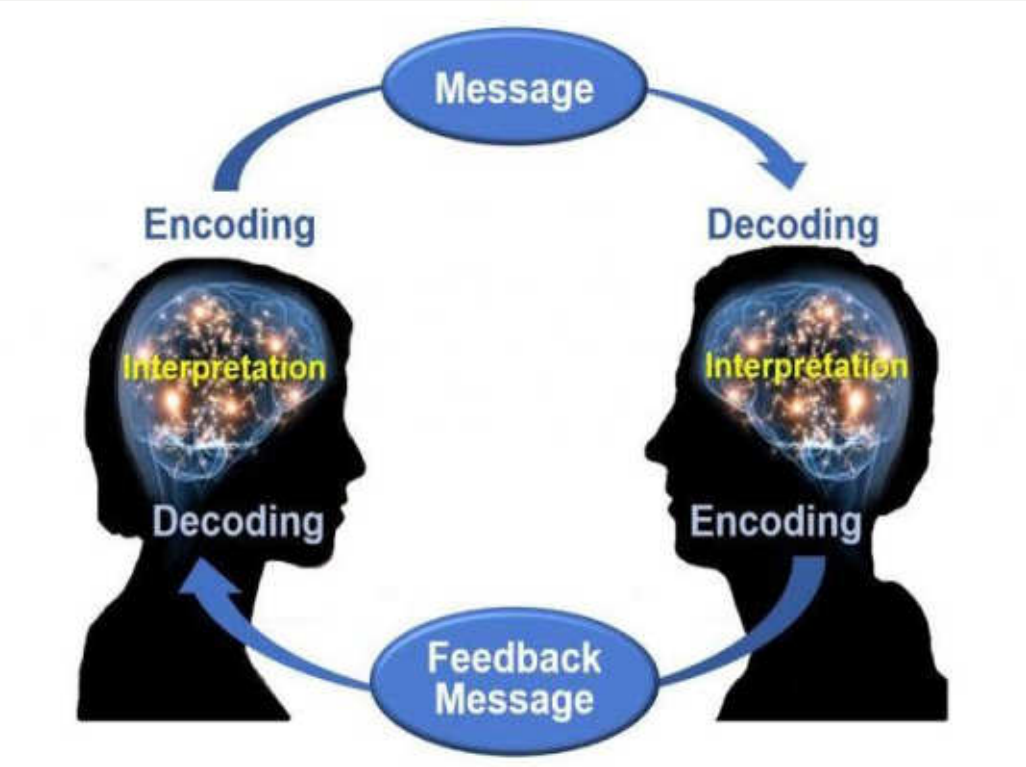
SCENARIO #6

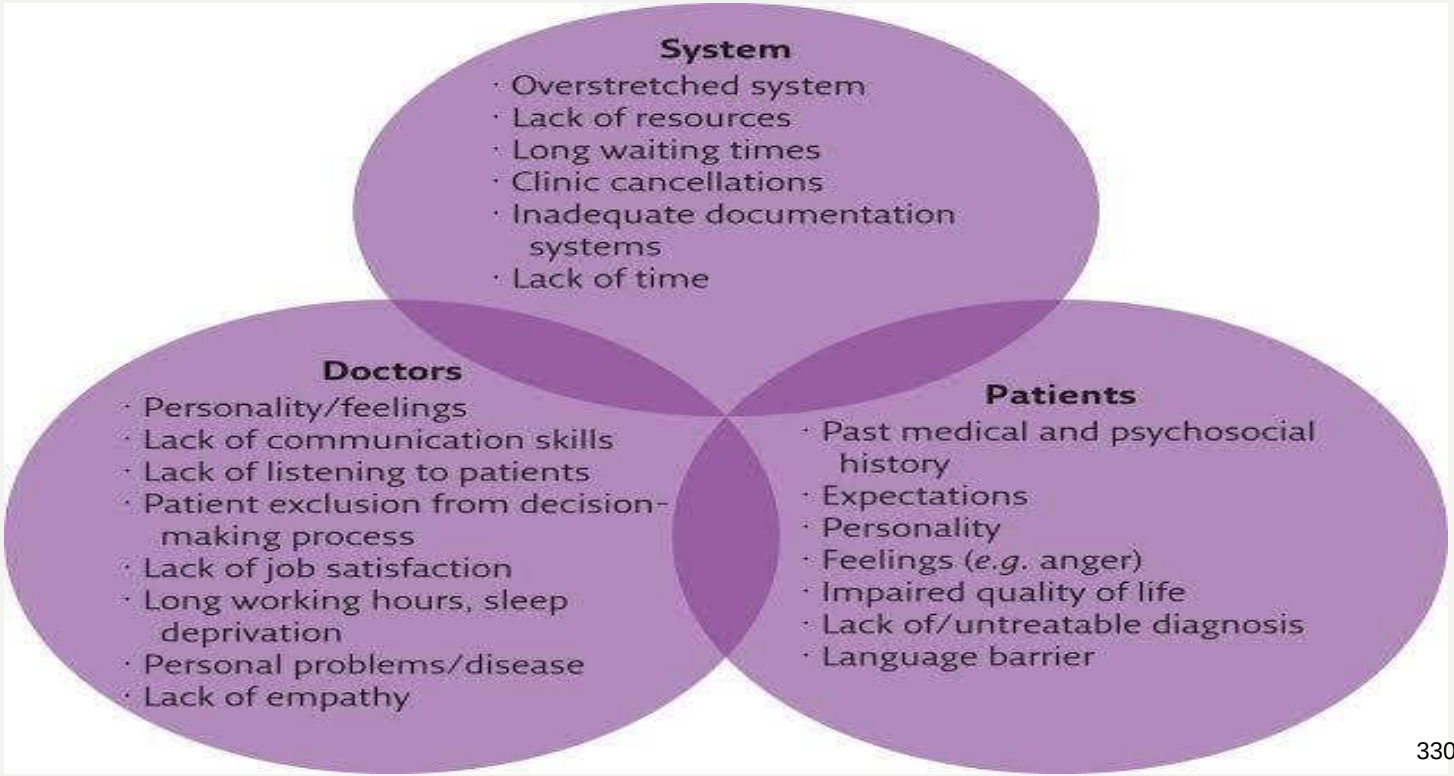
- You are in your final post and due for exam leave. Your boss refuses to give you 3 m
  colleagues in other branches are getting. Your parents are insisting you come home as
  match for you and the boy's side wants a commitment before the exams. They are not a
  from another community whom you are very serious about. All this is getting too mu
  don't know how you can cope.

How will you handle the situation?

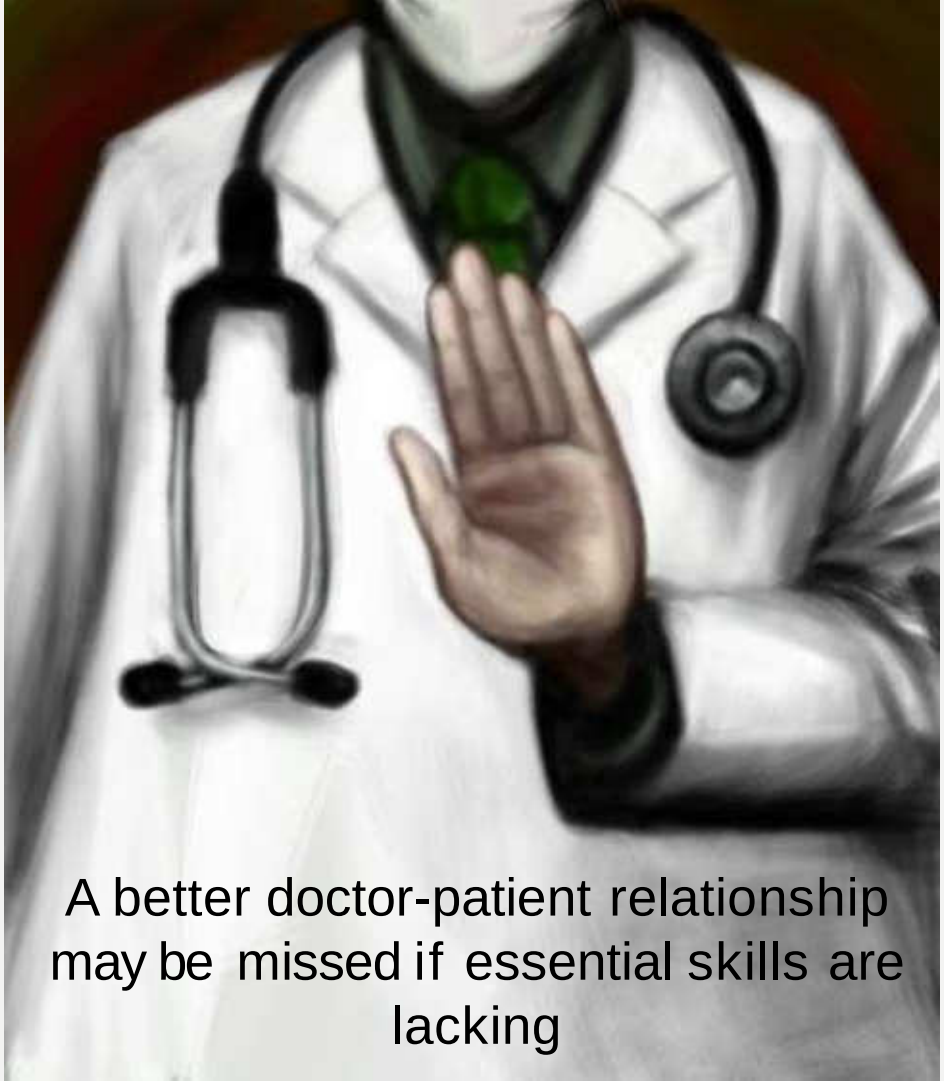

Individuals
Communities
Health Care Providers
WHO Staff
International Organizations
Policy-makers
Accessible
Actionable
Credible
Relevant
Timely
Understandable
COMMUNICATING
for
HEALTH

QUICK RECAP


Message
Encoding
Decoding
Interpretation
Interpretation
Decoding
Encoding
Feedback
Message


System
· Overstretched system
· Lack of resources
· Long waiting times
· Clinic cancellations
· Inadequate documentation systems
· Lack of time
Doctors
· Personality/feelings
· Lack of communication skills
· Lack of listening to patients
· Patient exclusion from decision-making process
· Lack of job satisfaction
· Long working hours, sleep deprivation
· Personal problems/disease
· Lack of empathy
Patients
· Past medical and psychosocial history
· Expectations
· Personality
· Feelings (e.g. anger)
· Impaired quality of life
· Lack of/untreatable diagnosis
· Language barrier

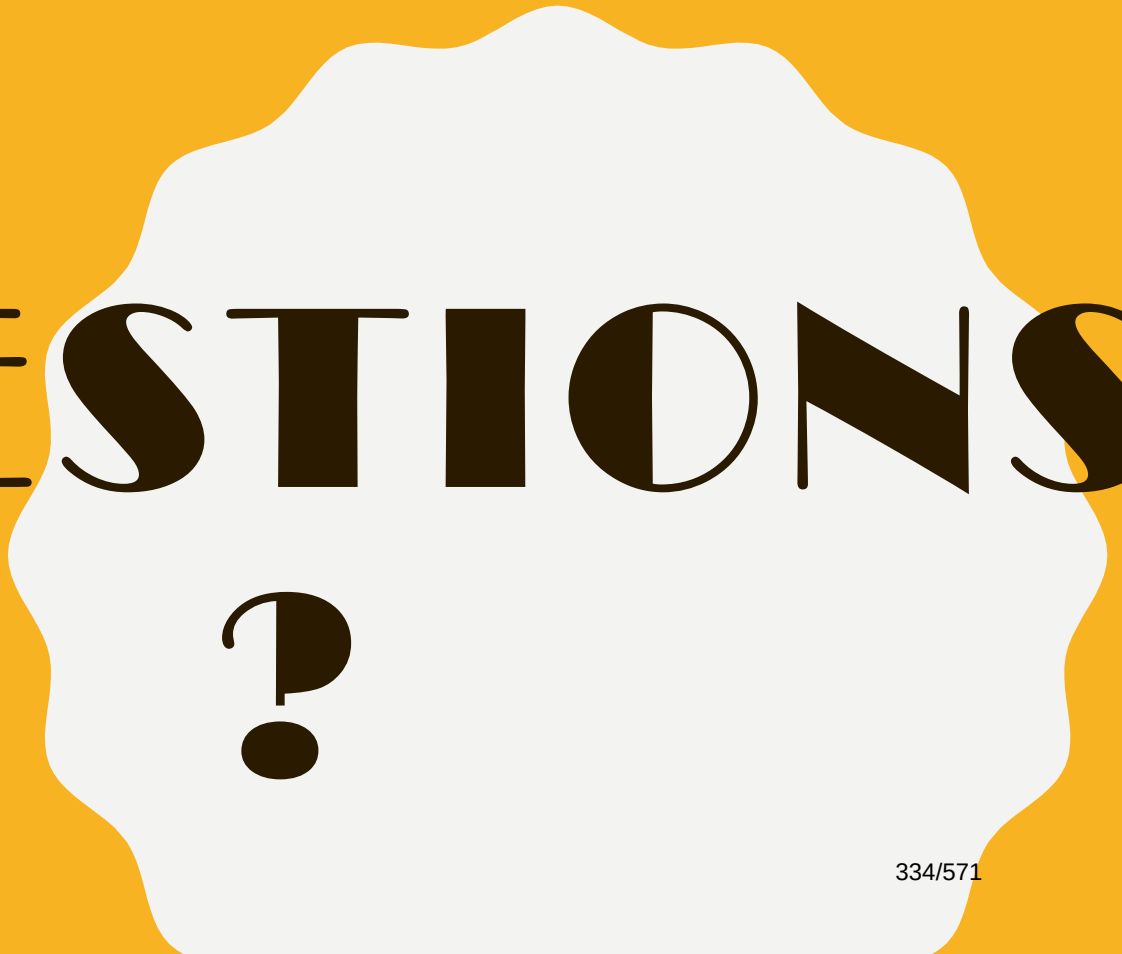
AN EFFECTIVE DOCTOR-PATIENT COMMUNICATION IS RECOGNIZED BY HEALTHCARE PROVIDERS AND PATIENTS AS ESSENTIAL TO HIGH QUALITY MEDICAL CARE



A better doctor-patient relationship may be missed if essential skills are lacking

COMMUNICATION HAS BEEN LINKED TO IMPROVED PATIENT OUTCOMES, RANGING FROM BLOOD PRESSURE CONTROL TO PATIENTS MENTAL HEALTH SCORES

QUESTIONS



?

THANK YOU

Inflow of Patient and important ICU protocols

Dr. Rosemarie de Souza
MICU In-charge
Professor & Head
Department of Medicine
T.N.M.C & B.Y.L Nair Hospital, Mumbai

Introduction

- **What is intensive care?**
  - ✓ Intensive care refers to care provided in a separate, specially staffed and equipped hospital unit dedicated for the observation, care and treatment of patients with life threatening illnesses or complications from which recovery is generally possible.
  - ✓ An intensive care unit (ICU) provides special expertise and facilities with the aim to restore vital organ function to normal in order to gain time to treat an underlying cause.

Principles to decide who needs an ICU..

- Critically ill patients with **reversible** medical condition with a reasonable prospect of **meaningful recovery** should be admitted to an ICU.
- Priority of admission should be based on urgency of patient's need for intensive care.
- An ICU antibiogram should be strictly followed while selecting patients for ICU.

Antibiogram and its use in ICU

- What is antibiogram?

✓ Antibiogram is a periodic summary of antimicrobial susceptibilities of local bacterial isolates.

- What is the use of antibiogram?

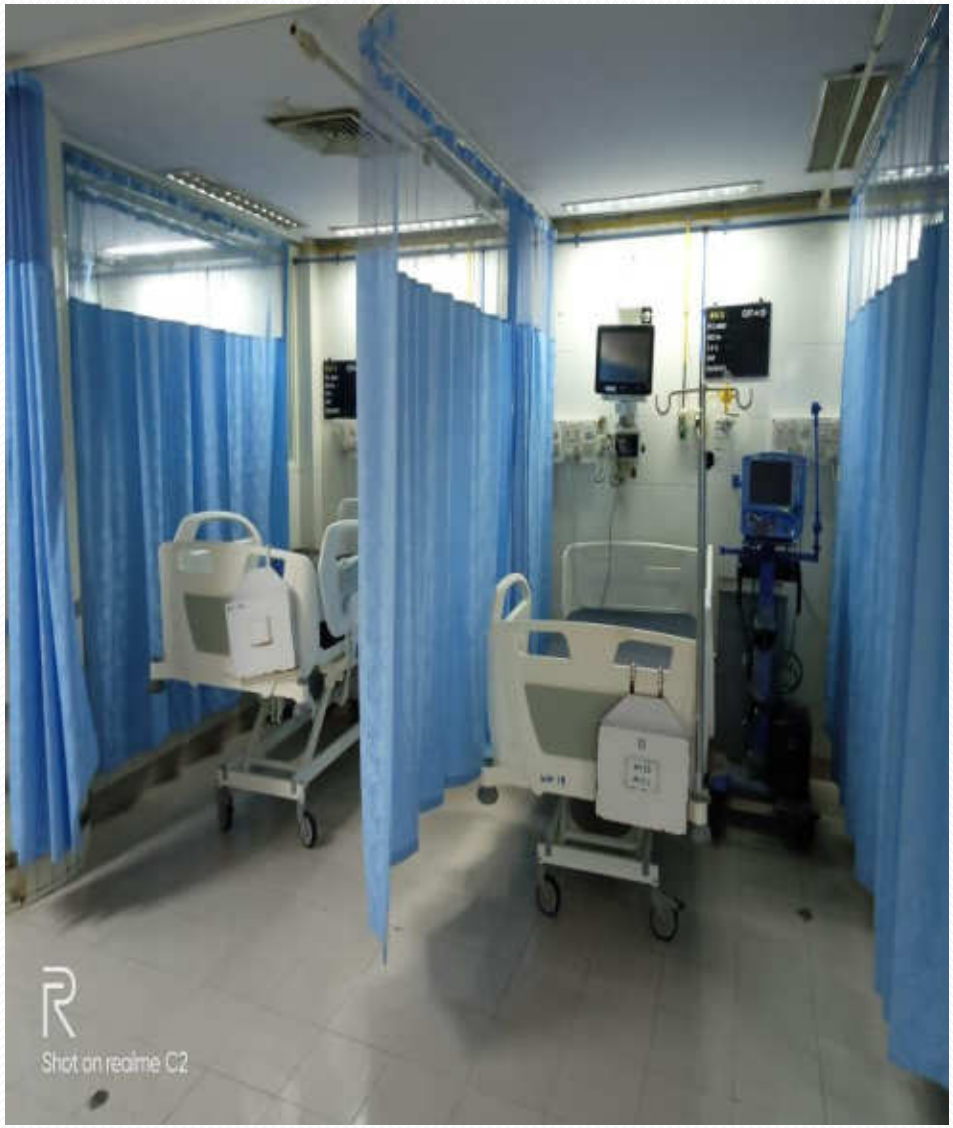
✓ Antibiogram helps us to avoid patients with severe infections with resistant organisms in ICU which in turn helps in limiting the nosocomial infections with such resistant organisms.

ICU Facility at Nair Hospital

- The ICU facility under department of medicine at Nair hospital:-

1. **MICU** :- It is a **23 bedded facility**. Critically ill medical patients with ventilatory support are managed here.

MICU



Specific conditions or diseases which require ICU admission..

- **Cardiac System**:- 1. Acute Myocardial Infraction
  2. Complex cardiac arrhythmias requiring close monitoring
  3. Acute Congestive Heart failure
  4. Hypertensive emergencies
- **Respiratory System**:- 1. Acute respiratory failure requiring ventilatory support
  2. Pulmonary embolism with hemodynamic instability

- **Neurological Disorders**:- 1. Status Epilepticus
  2. Meningitis with altered mental status and respiratory compromise
- **Renal**:- 1. Requirement for acute renal replacement therapy
- **Hematological**:- 1. Severe coagulopathy with bleeding diathesis.
  2. Severe anemia with hemodynamic or respiratory compromise
  3. Sickle cell crisis.

- **Obstetrics**:- 1. Medical conditions complicating pregnancy
  2. Severe Preeclampsia/Eclampsia
- **Endocrine**:- 1. Diabetic Ketoacidosis
  2. Thyroid storm or Myxoedema coma
  3. Severe electrolyte abnormalities.
- **Miscellaneous**:- 1. Septic shock
  2. Poisoning or drug overdose
  3. Near drowning

Triage

Due to limitation in number of ICU beds triaging is necessary. The following points should be considered while triaging a patient for ICU admission:-

- Diagnosis
- Severity of illness
- Age and functional status
- Co-morbid diseases
- Prognosis
- Anticipated quality of life

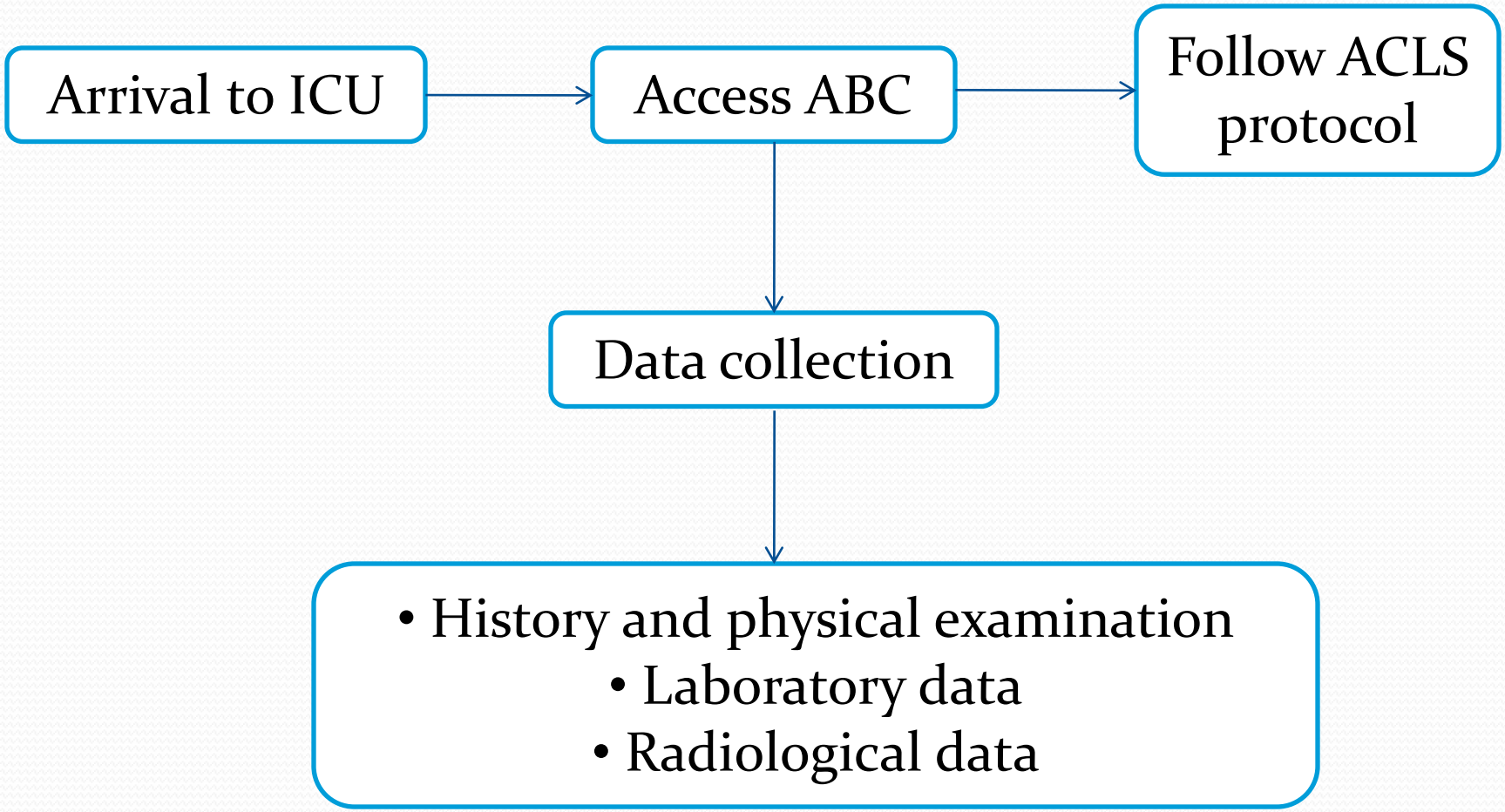
Patients who are generally not appropriate for ICU admission..

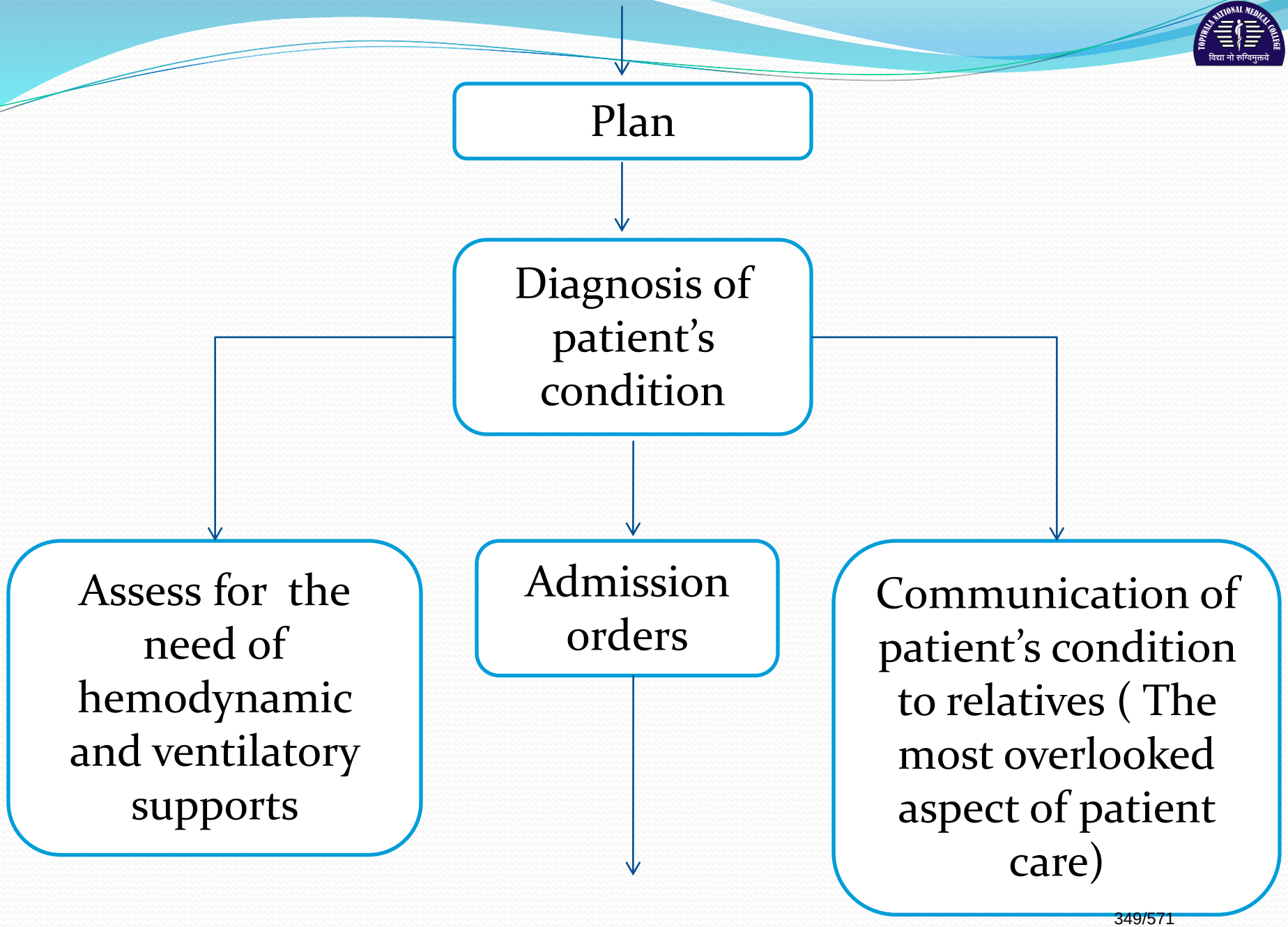
- Irreversible brain damage.
- End stage cardiac, respiratory and liver disease.
- Metastatic cancers unresponsive to chemotherapy and/or radiotherapy.
- Patients with non-traumatic coma leading to a persistent vegetative state.

Requirements in ICU

- Trained doctors.
- A very high nurse to patient ratio. In our hospital we have 1 nurse per 5 patients in ICU.
- The availability of invasive and non invasive monitoring devices.
- The availability of mechanical and pharmacological life sustaining therapies like vasopressors, mechanical ventilation, hemodialysis etc.
- Appropriate ICU infrastructure.

ICU Care:- Approach to patient




Plan
Diagnosis of patient's condition
Assess for the need of hemodynamic and ventilatory supports
Admission orders
Communication of patient's condition to relatives (The most overlooked aspect of patient care)

Treatment specific to diagnosis

General measures:-

- Skin care
- Fluid Replacement
- Nutrition
- Sedation/Paralysis
- GI Prophylaxis
- DVT Prophylaxis

Points which should never be ignored..

- Over and above the general approach for patient management the following points should always be assured in each and every patient in ICU:-

1. Signature of patient or a legally acceptable relative should be taken on the admission paper of every patient.
2. Consents for all the procedures should be taken from a legally acceptable relatives and proper procedure notes should be written in indoor papers.
3. Always take consents for transfusion of blood and blood products.

Daily Review

- The following parameters should be reviewed daily in each and every patient admitted in ICU:-

1. Hemodynamic parameters
2. Ventilatory parameters
3. Weaning potential
4. Sedation regimens
5. Electrolytes
6. Fluid balance
7. Nutrition
8. Lines and dressings

Investigations

- The following are some basic investigations that should be done in patients on admission to ICU:-

1. Complete blood count
2. Renal function tests
3. Liver function test
4. Chest X Ray
5. ECG
6. Coagulation studies like PT/INR/aPTT
7. Arterial blood gas analysis
8. Blood glucose levels

- The following are some of the additional investigations which should be done as per the disease condition and indications:-

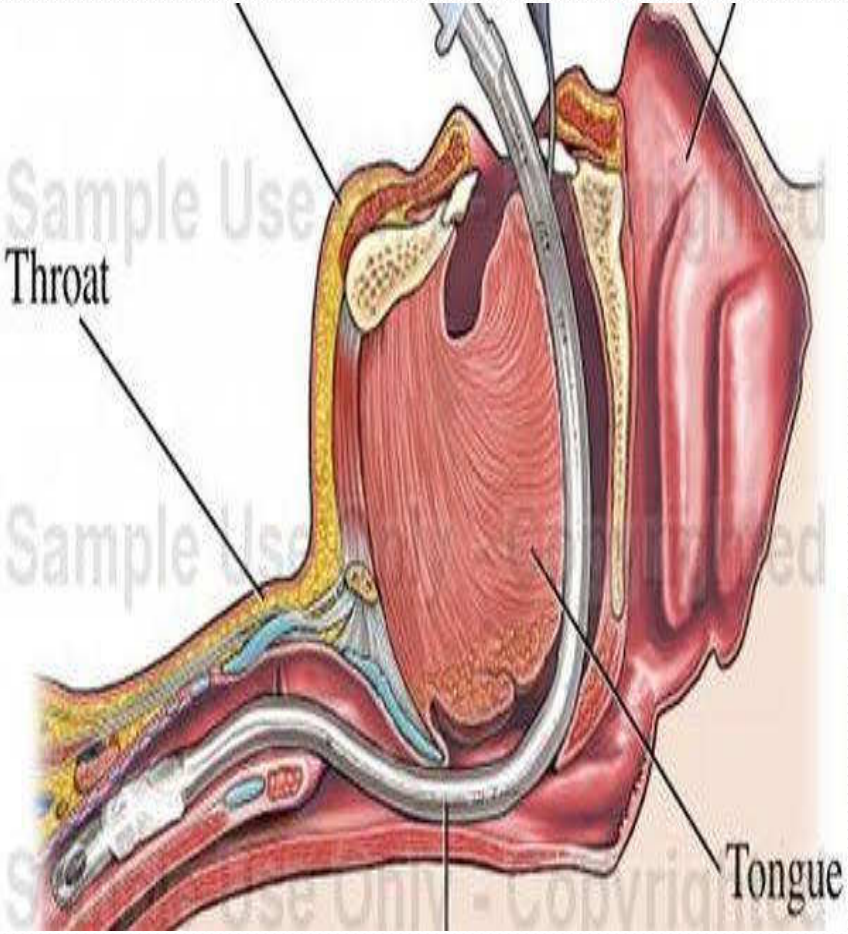
1. Cultures like Urine culture, Blood culture, Tracheal Culture etc.
2. Sputum studies
3. Various radiological investigations
4. CSF analysis
5. 2D echocardiography.
6. Pleural fluid & Ascitic fluid analysis.

Intensive Interventions

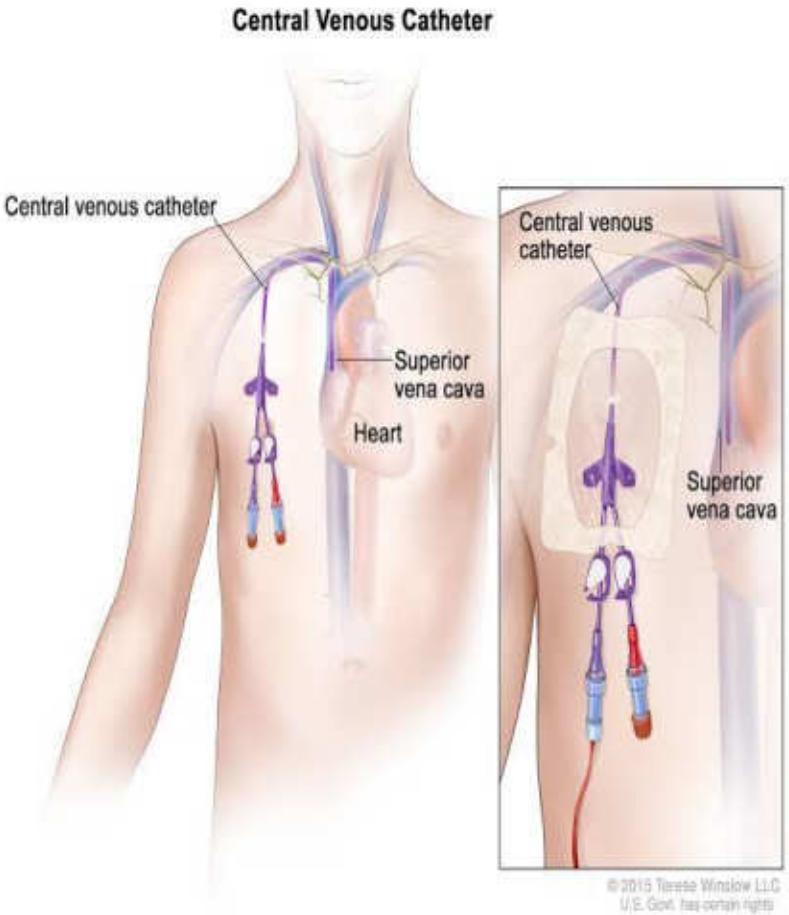
- The following are some routine interventions which are carried out in ICU:-

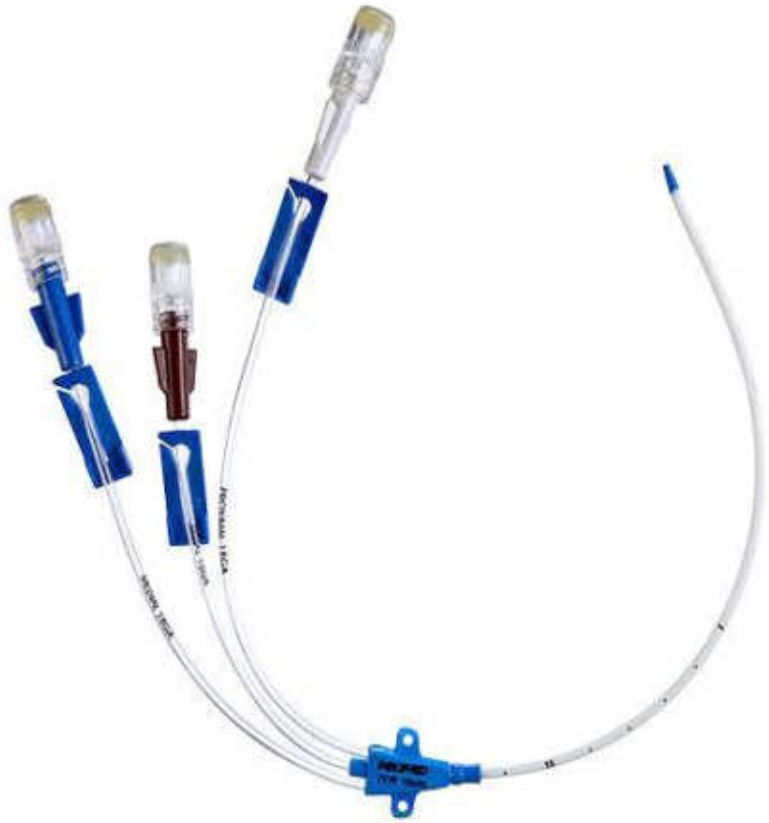
1. Intubation and Mechanical Ventilation.
2. Invasive Lines.
3. Central Venous Lines
4. Renal replacement therapy
5. Continuous infusion of drugs through syringe infusion pumps.
6. Use of Defibrillators.

Intubation and Mechanical Ventilation

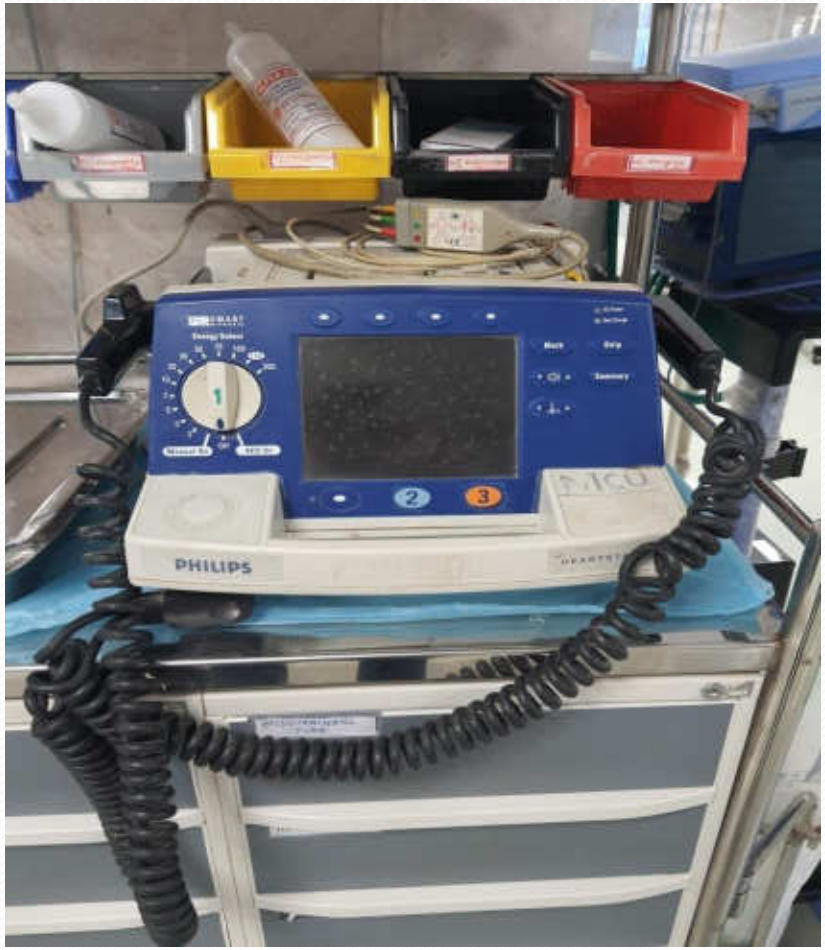


Central Venous Line

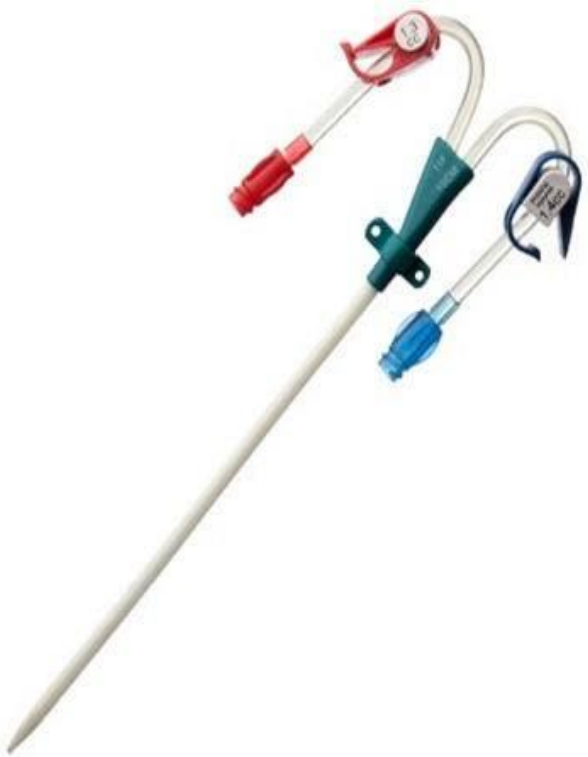




Defibrillator & Syringe Infusion pumps



Renal Replacement Therapy



Monitoring in ICU

- Monitoring helps us to attain the following information accurately:-

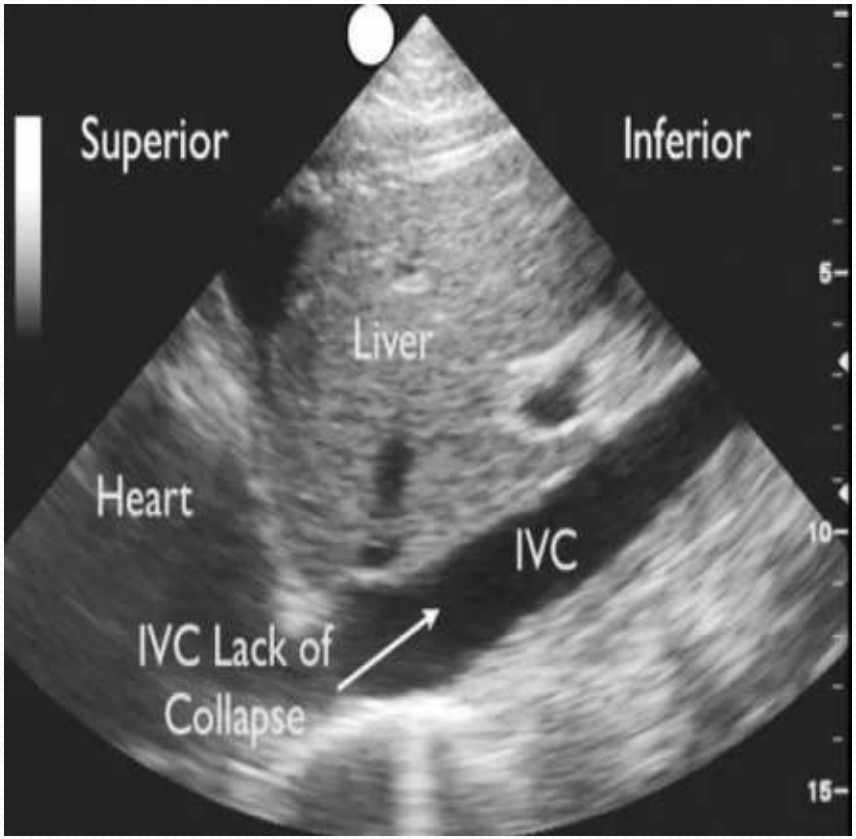
1. To detect any problem early and to manage them.
2. To record and follow trends in patients:- Improvement or deterioration

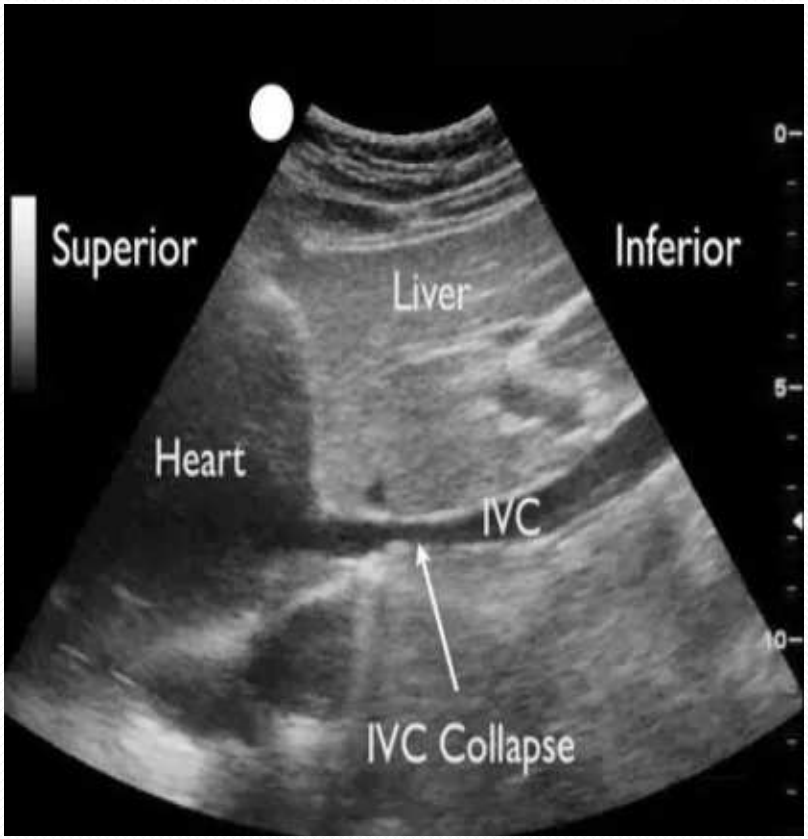
What to Monitor?

- Pulse Rate/Heart Rate
- Non invasive blood pressure
- Urine output
- Mental status
- Skin temperature
- Capillary Refill time
- Oxygen Saturation
- Intravascular Volume status

Multi-parameter Monitors & Pulse Oximeter

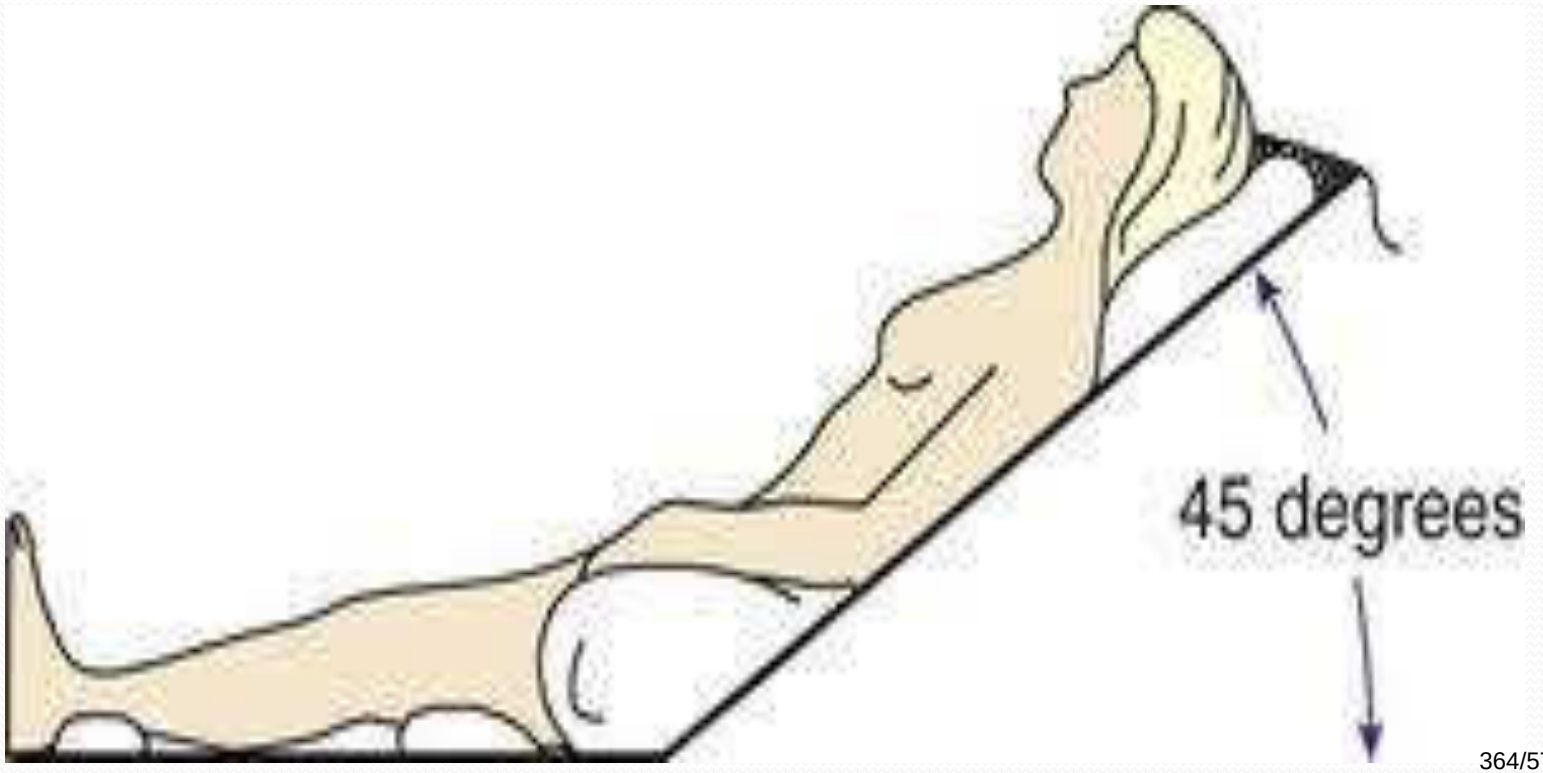
Intravascular Volume Status





Supportive Treatments

- Head Elevation to 35 to 45 degrees.

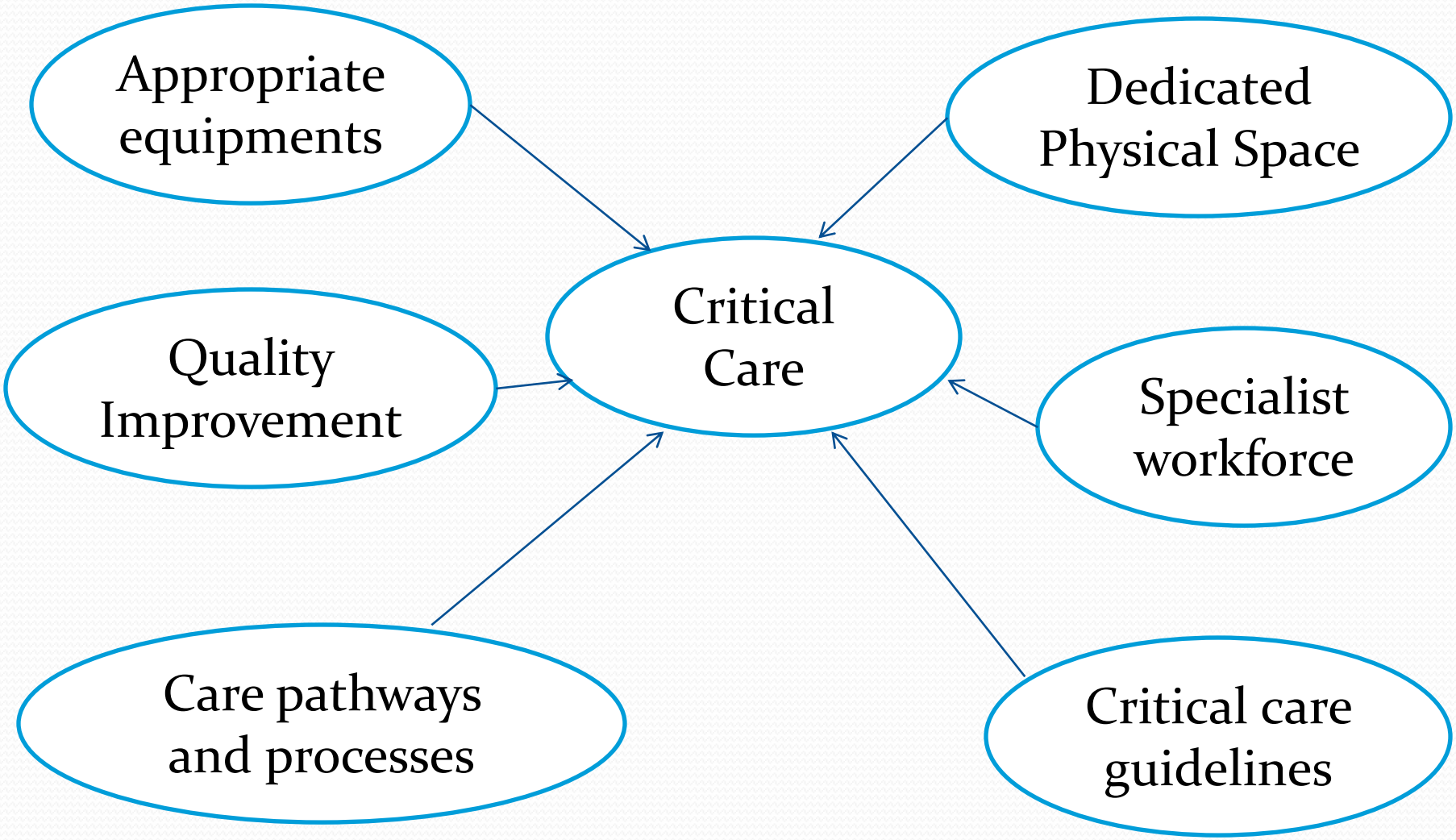


- Oral Hygiene with mouthwash.
- Bed sore prevention by position change every 2 hourly.
- Use of DVT prophylaxis using low molecular weight heparin or conventional heparin.
- Patients with contraindication to use of heparin should be given intermittent pneumatic compression devices
- Early mobilization.
- Proper nutrition using enteral or parenteral nutrition.

Complications Related to ICU

- Iatrogenic complications due to invasive procedures.
- Catheter related blood stream infections.
- Ventilator associated pneumonias.
- ICU psychosis
- Nosocomial infections due to resistant pathogens like MRSA, ESBL producers etc.

Summary of critical care



Thank You

Medicolegal Aspects- What You Need To Know

Dr. Pawan R. Sabale

MD; LLB

Professor (Addl.) and HOD,

Dept. of Forensic Medicine,

T. N. Medical College & Nair Ch. Hospital,

Mumbai.

Mobile - 7738646504

Post held-

Junior Resident

Senior Resident/Registrar

SMO

Asst. Professor

Assoc. Professor (Addl.)

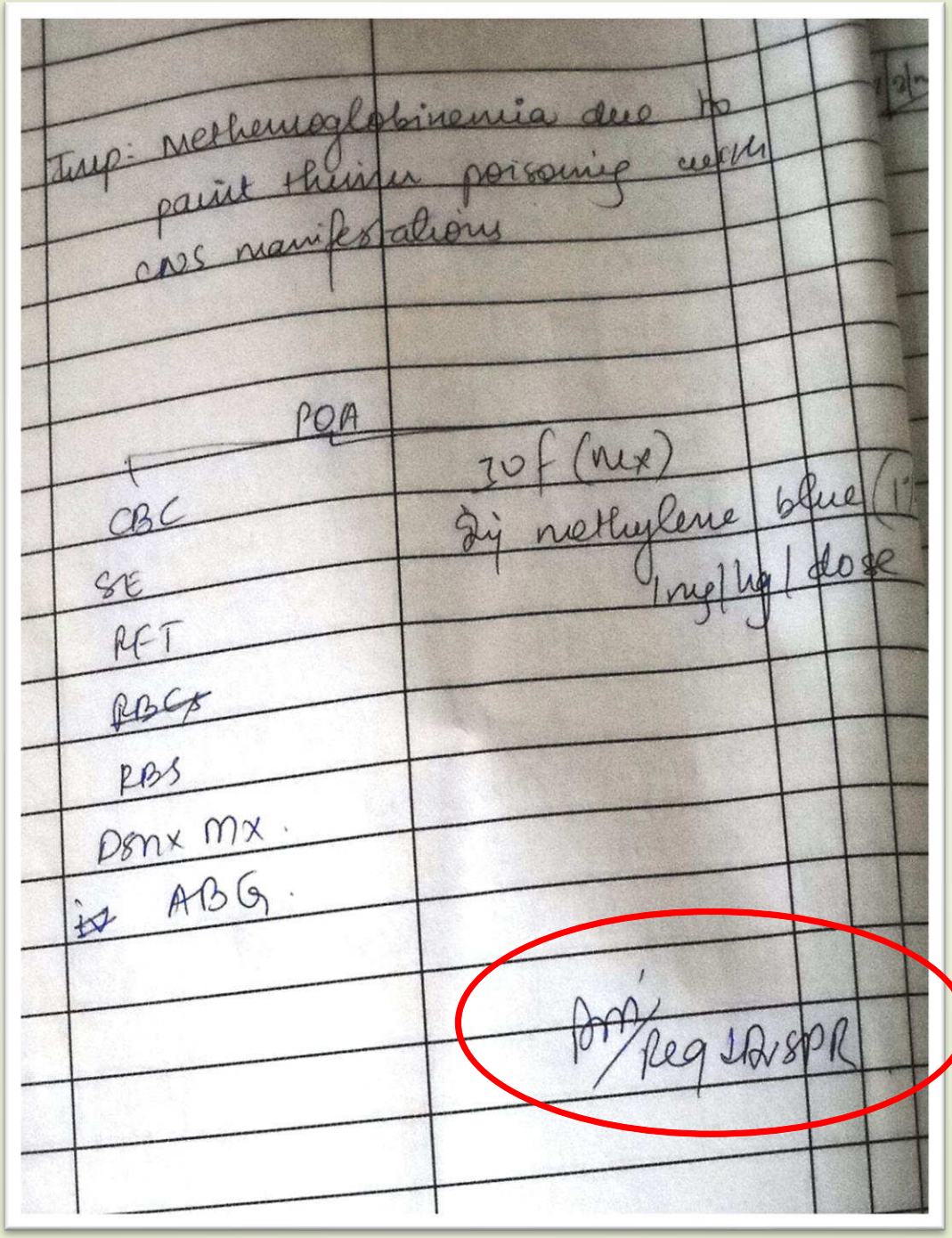
Assoc. Professor

Professor (Addl.)

Professor

HOD

MLC ?


Susp: Methemoglobinemia due to paint thinner poisoning with CNS manifestations

POA

CBC
SE
RFT
~~RBS~~
RBS
Dsnx Mx.
~~IV~~ ABG.

IVF (NS)
Inj methylene blue (1
1mg/kg/dose

DM/Reg IDs/SPR

O/E

gc fair

PR - 120/m ppnf.

RR - 24/m No RD.

Afebrile

Swelling of (L) LL below knee. c blueish discolouration present.

RS - BERE
clear

CVS - S1S2 (+)
CNS

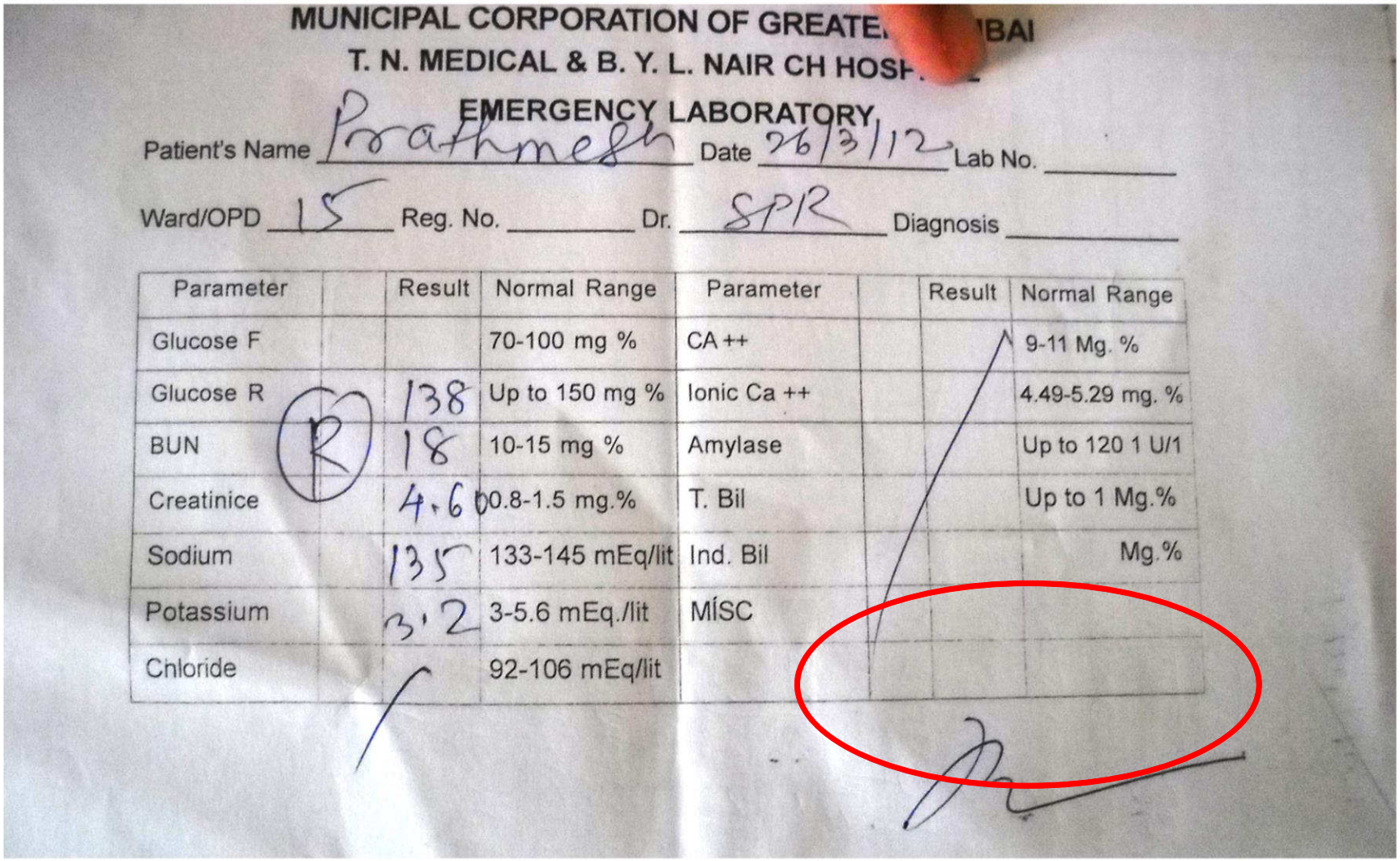
P/A - Soft
NT

CNS - conscious
alert

Imp - A case of unknown bite & c swelling of (L) LL below knee most probable -

- Rat bite
- Snake bite
- Allergic reaction

(R)
MO Dist R



MUNICIPAL CORPORATION OF GREATE[illegible]BAI

T. N. MEDICAL & B. Y. L. NAIR CH HOSP[illegible]

EMERGENCY LABORATORY

Patient's Name Prathmesh Date 26/3/12 Lab No. _____

Ward/OPD 15 Reg. No. _____ Dr. SPR Diagnosis _____

Parameter		Result	Normal Range	Parameter		Result	Normal Range
Glucose F			70-100 mg %	CA ++			9-11 Mg. %
Glucose R		138	Up to 150 mg %	Ionic Ca ++			4.49-5.29 mg. %
BUN		18	10-15 mg %	Amylase			Up to 120 1 U/1
Creatinice		4.6	0.8-1.5 mg.%	T. Bil			Up to 1 Mg.%
Sodium		135	133-145 mEq/lit	Ind. Bil			Mg.%
Potassium		3.2	3-5.6 mEq./lit	MISC			
Chloride			92-106 mEq/lit				

MUNICIPAL CORPORATION OF GREATER MUMBAI

T. N. MEDICAL COLLEGE & B.Y.L. NAIR CH. HOSPITAL

CHEMICAL PATHOLOGY LABORATORY

BLOOD REPORT

Patient's Name : Sameer Date : 21/2/12 Lab. No. : 350

Ward / OPD IPW Reg. No. : 8 Dr. : SRK. Diagnosis :

Parameter	Result	Normal range
Blood Sugar F	—	70 - 100 mg %
Blood Sugar PP	—	Upto 130 mg %
Pro. Time	14	11 Sec.
Pro. Index %	71.5	100 %
INR.	1.5	
Blood Ammonia	—	35 to 120 ug / dl

Sr. M.O. / Sr. Biochemist

ORIGINAL

BMPP-514-2003-2,600 Bks. (100x2) HP 41

MUNICIPAL CORPORATION OF GREATER MUMBAI

बृहन्मुंबई महानगरपालिका

HOSPITAL रुग्णालय

No 247486

HISTOPATHOLOGY REPORT

उतिव्याधिकीय अहवाल

Surgical Serial No. .....
शल्यचिकित्सा अनुक्रमांक

Name Sameer
नाव

Ward No. ICU Bed No. .....
वक्ष क्र. खाट क्र.

Indoor
आंतररुग्ण विभाग

O.P.D.
बाह्यरुग्ण विभाग

Reg. No. 6518
नोंदणी क्र.

8PR

Dr. .....
डॉ.

Sec. No. 212
छेद क्र.

Date तारीख	Examined by. परीक्षक
~~22-2-12~~	

URINE REPORT

Albumin - Trace

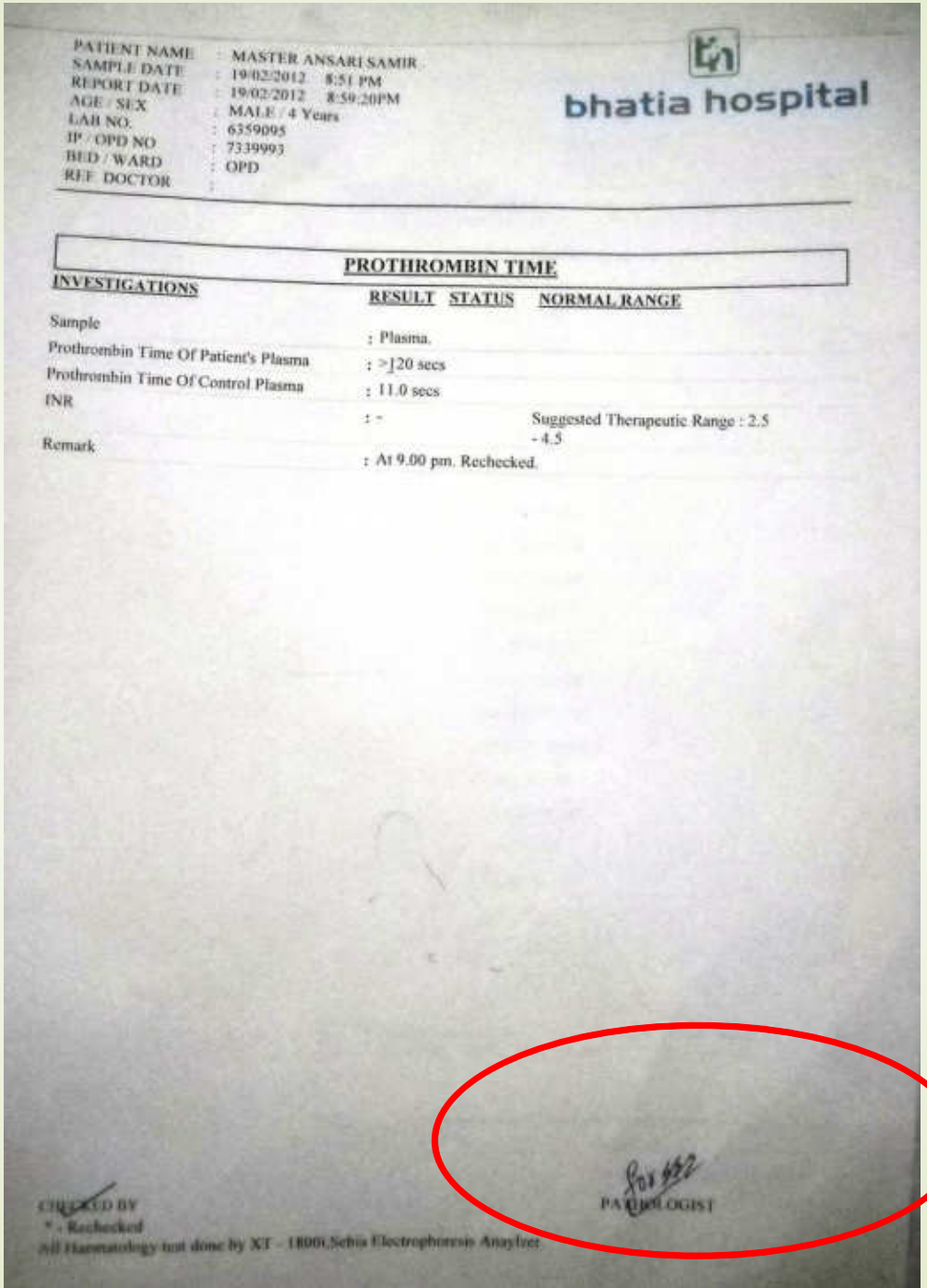
Sugar Absent

Microscopic Exam - 1-2 squamous Epi cells/hpf

UA Ct

1-2 RBC's/hpf , 1-2 pus cells/hpf

Pathologist .....
विकृतीशास्त्रज्ञ



bhatia hospital

PATIENT NAME	: MASTER ANSARI SAMIR
SAMPLE DATE	: 19/02/2012 8:51 PM
REPORT DATE	: 19/02/2012 8:59:20PM
AGE / SEX	: MALE / 4 Years
LAB NO.	: 6359095
IP / OPD NO	: 7339993
BED / WARD	: OPD
REF. DOCTOR	:

PROTHROMBIN TIME

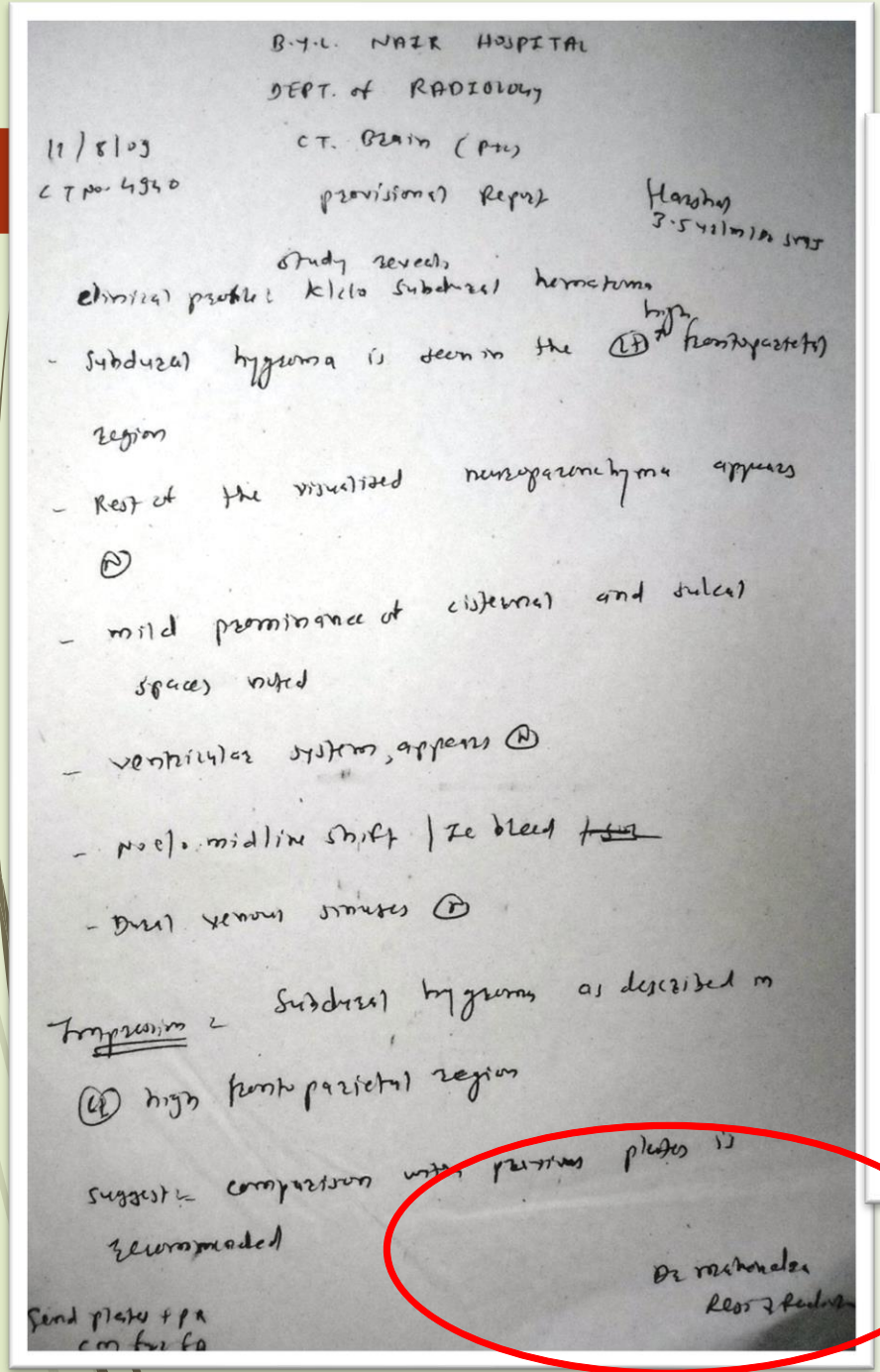
INVESTIGATIONS	RESULT	STATUS	NORMAL RANGE
Sample	: Plasma.		
Prothrombin Time Of Patient's Plasma	: >120 secs		
Prothrombin Time Of Control Plasma	: 11.0 secs		
INR	: -		Suggested Therapeutic Range : 2.5 - 4.5
Remark	: At 9.00 pm. Rechecked.		

CHECKED BY

PATHOLOGIST

* - Rechecked

All Haematology test done by XT - 1800,Sebia Electrophoresis Anaylzer



B.Y.L. NAIR HOSPITAL
DEPT. of RADIOLOGY

11/8/09
CT No. 4940

CT. Brain (Plain)
provisional Report

Harshal
3.5 yrs/M/RGC

Study reveals,
clinical profile: klclo subdural hematoma

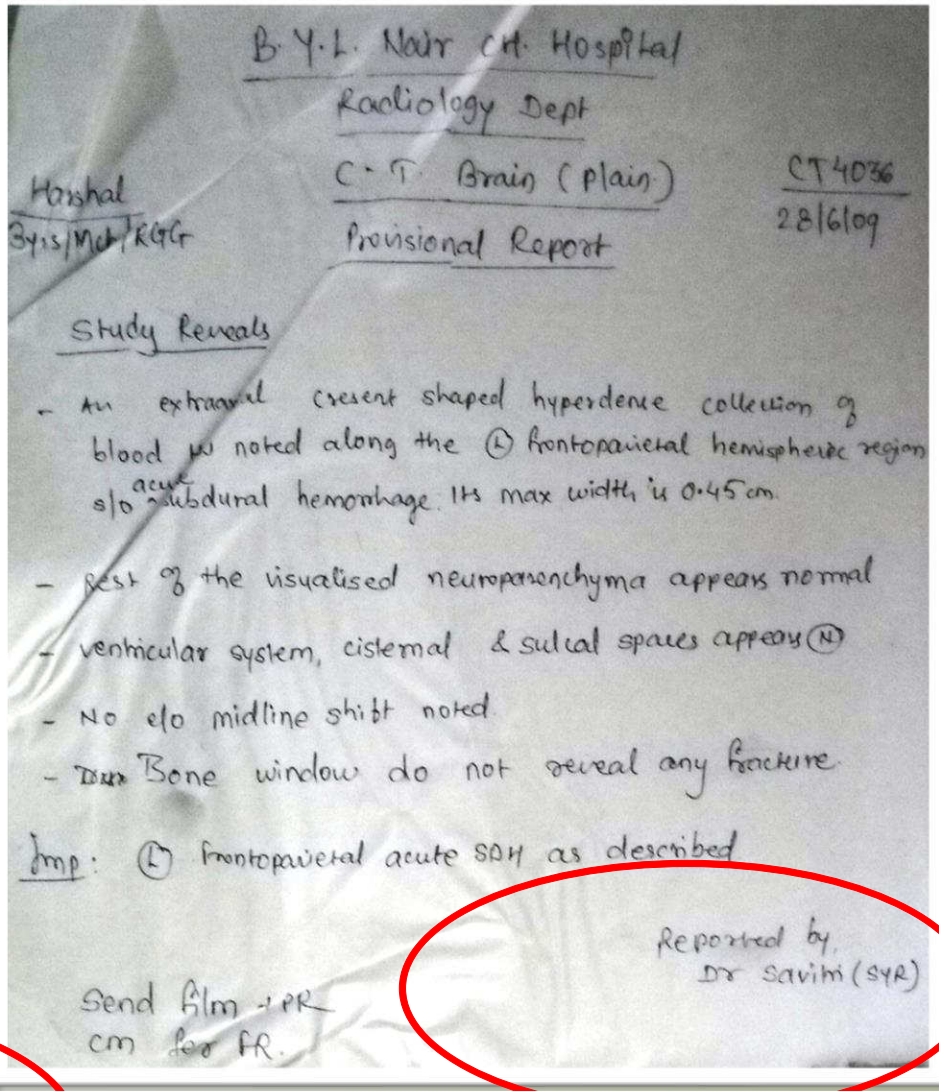
- Subdural hygroma is seen in the (LF) high frontoparietal region
- Rest of the visualized neuroparenchyma appears (N)
- mild prominence of cisternal and sulcal spaces noted
- ventricular system appears (N)
- No e/o midline shift / ze bleed
- Dural venous sinuses (P)

Impression: Subdural hygroma as described in (LF) high fronto parietal region

suggest: comparison with previous plates is recommended

Dr Mahendra
Resp Radiology

Send plate + pa cm for fr



B.Y.L. Nair CH. Hospital
Radiology Dept

Harshal
3yrs/M/RGC

C.T. Brain (plain)
Provisional Report

CT4036
28/6/09

Study Reveals

- An extraaxial cresent shaped hyperdense collection of blood is noted along the (L) frontoparietal hemisphere region s/o acute subdural hemorrhage. Its max width is 0.45 cm.
- Rest of the visualised neuroparenchyma appears normal
- ventricular system, cisternal & sulcal spaces appears (N)
- No e/o midline shift noted
- Bone window do not reveal any fracture

Imp: (L) frontoparietal acute SDH as described

Reported by,
Dr Savitri (SYR)

Send film + PR cm for FR.

जावक क्र. ७५९१ /२०१३,
डॉ.दा.भ.मार्ग पोलीस ठाणे,
मुंबई ४०० ००७,
दि :- ११/१२/२०१३.

प्रति,

मा. वैदयकीय अधिकारी,
नायर रूग्णालय, मुंबई

विषय :- बळीत महिलाची संपुर्ण वैद्यकीय तपासणी वय निश्चीती करून अहवाल मिळणे बाबत.
संदर्भ :- डॉ.दा.भ.मार्ग पोलीस ठाणे, गु.र.क्र. ५९/१३ कलम ३७६, ३४२, ५०४, ५०६, ३४ भा. दं.स. सह कलम ३, ४, ५ अनैतिक व्यापार प्रतिबंधक कायदा.

महोदय,

उपरोक्त विषय व संदर्भास अनुसरून आपणांस कळविण्यात येते की, डॉ. दा. भ.मार्ग पोलीस ठाणे गु.र.क्र. ५९/१३ कलम ३७६, ३४२, ५०४, ५०६, ३४ भा. दं.स. सह कलम ३, ४, ५ अनैतिक व्यापार प्रतिबंधक कायदा या गुन्ह्यात ताब्यात घेण्यात आलेली बळीत महिला श्रीमती प्रिया जितेंद्र शहा हिने नमुद गुन्ह्यातील आरोपी याने तिचेवर सन २००१ ते २००९ या कालावधीत जबरी संभोग करुन तिला जबरदस्तीने वेश्या व्यवसाय करण्यास भाग पाडल्याबाबत तक्रार दिलेली आहे.

मा. महानगर दंडाधिकारी, ५४ वे न्यायालय, माझगांव, मुंबई यांनी नमुद बळीत महिलावर बलात्कार झाला किंवा कसे तसेच तिचे वय निश्चीतीबाबत संपुर्ण वैद्यकीय तपासणी करुन घेवून अहवाल सादर करण्याचे आदेश दिलेले आहेत. आदेशाची छायांकित प्रत सोबत जोडली आहे.

नमुद बळीत महिला हिचे वैद्यकीय तपासणीबाबत दिनांक १४/०२/१३ पुर्वी किंवा दिनांक १४/०२/१३ रोजी मा. न्यायालयास अहवाल सादर करावाचा आहे.

बळीत महिला प्रिया जितेंद्र शहा हिस आपल्या रुग्णालयात पाठविण्यात येत आहे. तरी तिची वैद्यकीय तपासणी करून वय निश्चीतीचा अहवाल मिळण्यास विनंती आहे.

आपला विश्वासु,

पोलीस निरीक्षक,
डॉ.दा.भ.मार्ग पोलीस,ठाणे,
मुंबई

म.आ.पोदार रुग्णालय, वरळी, मुंबई - १८.

दिनांक : 16.4.13

प्र मा ण प त्र

असे प्रमाणित करण्यांत येते की, या रुग्णालयाचे अपघात विभागात दिनांक 16.4.13 रोजी 9.00 PM सुमारास उपचार कामी आलेला रुग्ण नांव Ashvini Ganesh Dakotaway 21yr. वर्षे यांची तपासणी केली असता, तो रुग्णालयांत उपचार कामी दाखल होण्यापूर्वीच मयत झालेला आहे.

(डॉ. Dr. Neela Khavai)

अपघात वैद्यकीय अधिकारी,
म.आ.पोदार रुग्णालय, वरळी, मुंबई - १८

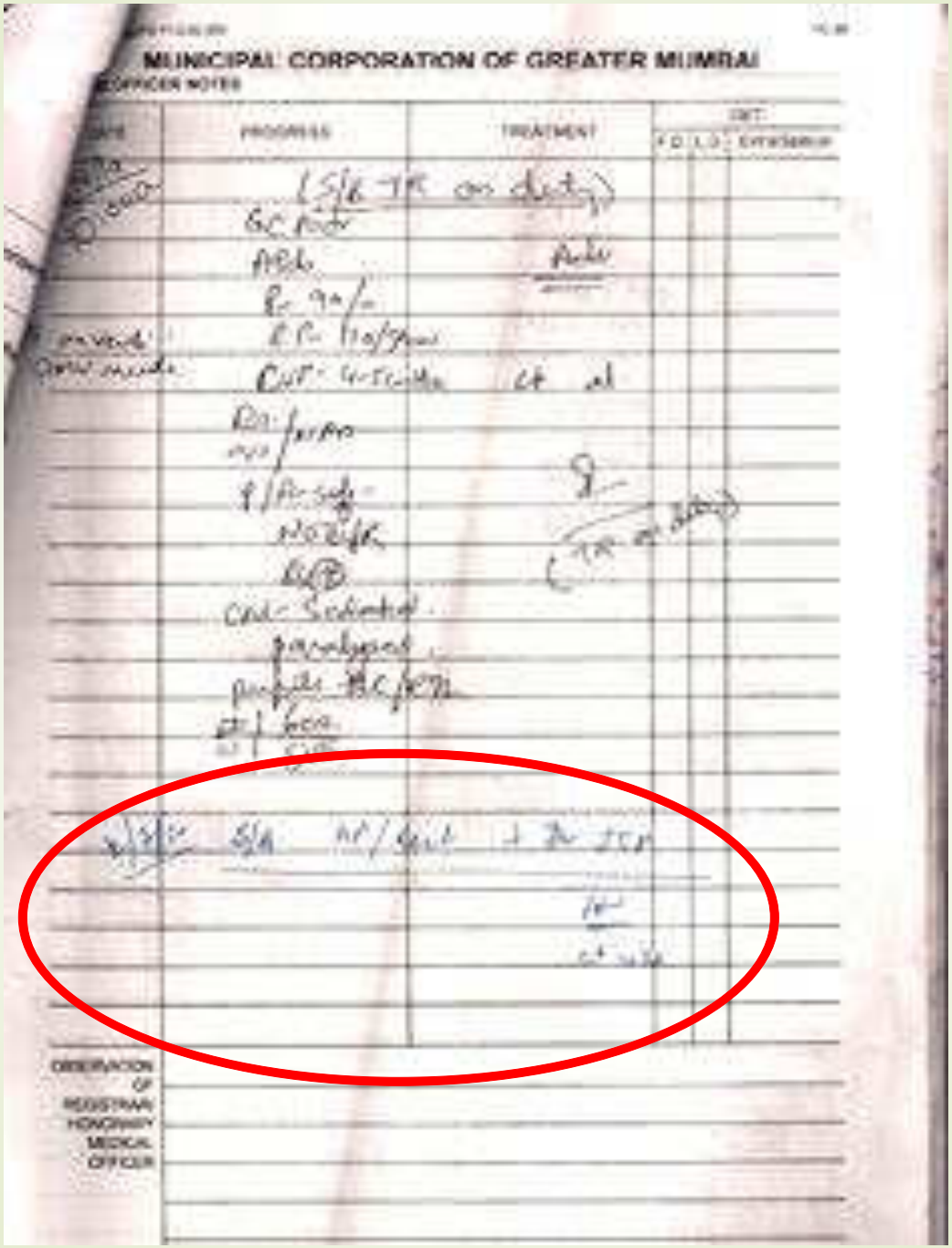
CMO
M.A.Podar Hospital,
Govt. of Maharashtra,
Worli, Mumbai-400018.

INDOOR NOTES

- Obtain signatures of seniors during rounds
- Obtain signature on operative notes/post op orders/transfer notes/discharges/sanction of drugs/investigations requests to administration

INDOOR NOTES

- Indoor notes-Routine ward rounds
- Seen by lecturer but no signature or name of Lecturer in IPD papers
- In case of death informed to seniors but to whom, when, how



MUNICIPAL CORPORATION OF GREATER MUMBAI

OFFICER NOTES

DATE	PROGRESS	TREATMENT	INV.

OBSERVATION OF REGISTRAR/ HONORARY MEDICAL OFFICER

BMPP-6788-2010-11-3,00,000

MUNICIPAL CORPORATION OF GREATER MUMB

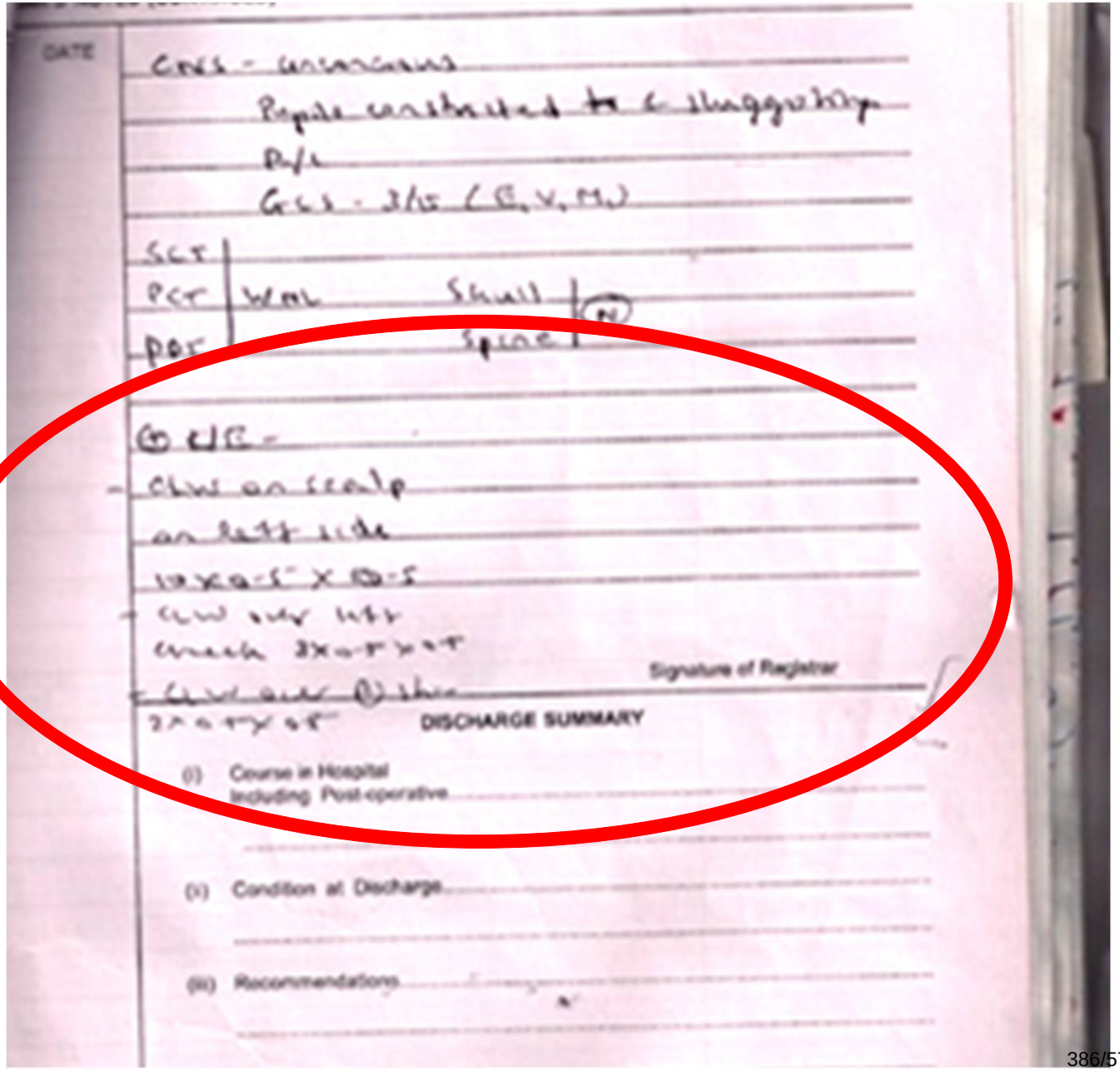
HOUSE OFFICER NOTES

DATE	PROGRESS	TREATMENT	F D	L D	E
3/7/10 5.00pm	S/B/JR, & Dr. J.J.P				
	GC fair Moderate	Adv			
	afebrile	- ct all			
	Pt on vent, SIMV mode	↓			
	P - 90/min	IV Fluids			
	BP - 100/70 mmHg	as per chart			
	RS - AEBE	help.			
	CVS - S1 S2 (N)				
	CNS - Unconscious	NJ feeds test			
	Pupils → B/L Sluggish	Feeds			
	R/L	10RL q 8 hr			
	GCS - E1 M5 V				
	P/A soft,				
	T/G/R				
	B.S (+)				
	AG 80 cm (↔)				
	I/O = 850 ml / 200				

Vent: Mode SIMV, FiO2 450, PEEP 5, Rate 14, SpO2 100%

INJURY REPORT

- Wrong proforma
- Intention of the patient
- Check the casualty paper
- No identification marks on the certificate
- Mention nature/size/site/age of injury
- Investigations done



DATE

Signature of Registrar

DISCHARGE SUMMARY

(i) Course in Hospital including Post-operative

(ii) Condition at Discharge

(iii) Recommendations

Post operative transfer to our hospital

e.g.

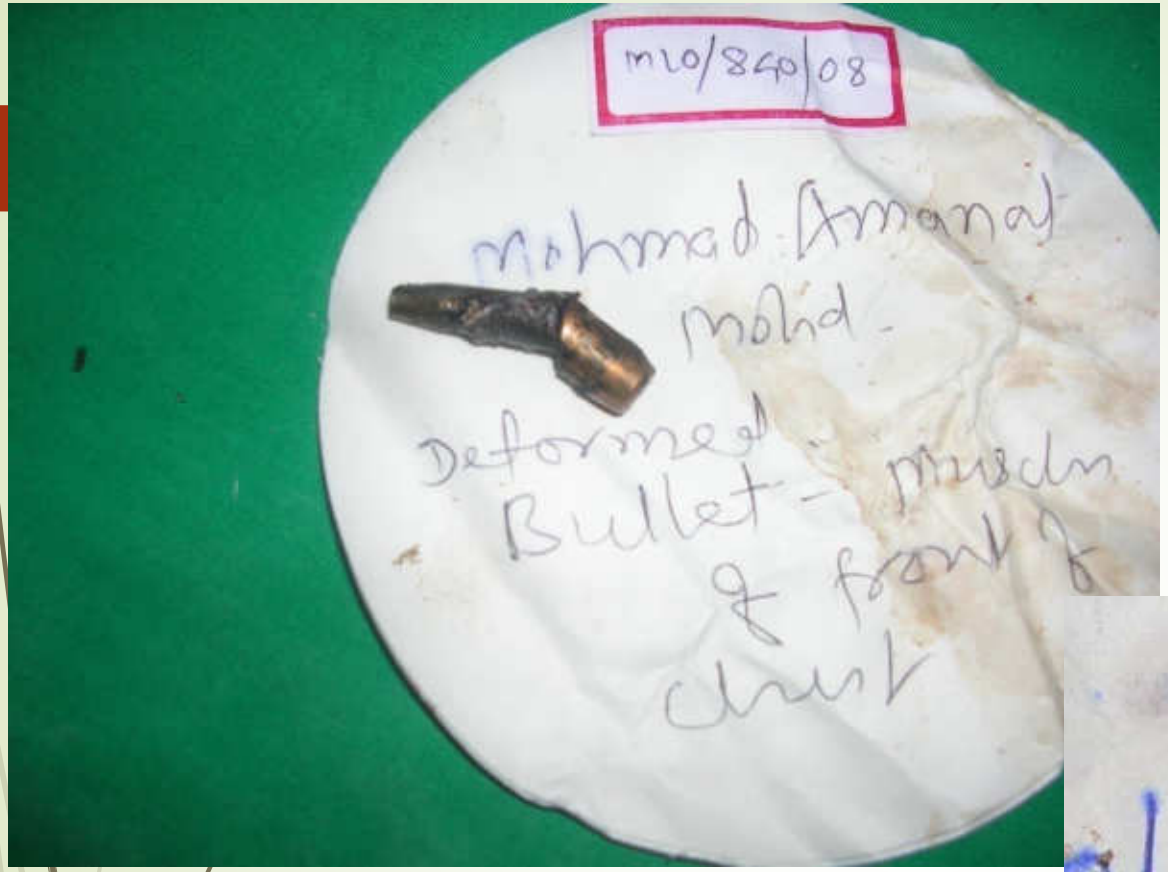
- Gangrene following injection
- Anaphylactic reaction
- Ask for detail notes and history from accompanied personnel note phone no. of transferring doctor- in case of any queries eg. Site of injection, treatment given, reasons for transfer

UNKNOWN PATIENTS

- Note the identifying features like- height, approximate age from secondary sexual characters, teeth, changes of old age, identification marks like mole, scar, tattoo etc.
- If person regains consciousness note his name, address, phone no., whom to be informed, also inform concern P.S. through AMO and casualty PC.
- Also ask about history of the incidence
- Sec. 92 IPC

Foreign bodies / samples preserved

- Bullet / pellets / fragments / cartridge recovered - Preserve in glass bottle with bullet wrapped in cotton, do not wash the blood on surface, do not use toothed forceps .
- Hand wash is taken in all firearm cases where person has fired the gun
- Broken tip of weapon in case of stab, swab / gauze / instrument remained in body cavity in c/o negligence.
- All foreign objects should be photographed with scale, note their dimension


m10/840/08
Mohmad Amanat
Mohd.
Deformed
Bullet - Muscle
& front
chest


13
12
11
10

Preservation of foreign bodies / samples

- Nail clippings – both hand on filter papers separately, labeled and sealed in envelop
- Blood for alcohol - 5 ml blood in sodium fluoride and potassium oxalate bulb. WITH B FORM
- Labeling of samples eg. Name, IPD no., ward No. E.P.R. no., unit, date, police station, name of the contents, signature of doctor
- Sealing of samples and filling of the C.A. forms
- Where do you get CA forms? how to seal? where to seal?

Dispatch of foreign bodies / samples

1. Through AMO / MRO and given to police, with receipt which should be subsequently attached to IP papers.
2. Samples can also be given directly to police however the receipt should be obtained and attached to IP papers.

Receiving letters

- Read the contents of the letter—e.g. CMO giving multiple case papers
- Act on the letters as per its contents, if unaware of certain things ask some other senior
- Don't toss the paper
- Replying letters - In time
- Giving endorsements and maintain a copy

Consent

- Procedure
- Operations
- High risk
- Breaking bad news –death/serious illness
- Not to indulge in unethical things eg. blood camp
- Curb irregularities at an earlier date
- Confidentiality of pt test results
- Don't call pts by diagnosis
- Do not be connivance with MR's and other lab/instrument company agents---HOD's duty to find from where things are coming

Operation done without patient's consent is an assault

Jehangir B Gai

Subject: The consumer protection Act provides a remedy against doctors who turn into butchers for money.

Background: Consent obtained by a doctor is not a mere paper formality. It has a certain meaning and purpose.

Case Study: Jayapal Reddy's wife, Kusuma, was a patient of gynaecologist Dr Padmini Vulluri since 2008 when she delivered her first child. In 2009, she consulted Dr Vulluri for menstrual problems. She was diagnosed with fibroid uterus and malnutrition, for which medications were given.

On July 2010, during a follow-up, after an ultrasound examination, she was admitted to Yashoda Group of Hospitals in Secunderabad. Jayapal later learnt that Dr Vulluri had operated on Kusuma and performed a total abdominal hysterectomy and bilateral salpingo-oophorectomy with adhesiolysis.

Jayapal said claimed the operation was done without a valid consent from his wife or him. He said that due to abdominal pain, fear and a disturbed state of mind, Kusuma could not give an informed consent and that the hospital had taken his signatures on a blank form. He said the hospital did not pay heed to his request to provide information related to the operation theatre documents and a case-sheet copy. Jayapal also claimed that he was not informed about the hysterectomy even after the surgery. He said the doctor had removed the fallopian tubes and ovaries unnecessarily, despite availability of alternative methods.

CONSUMER AS KING

Jayapal wanted another child, which would have been possible through IVF or the test-tube method with the help of a surrogate mother. But now, with his wife's ovaries and reproductive organs removed, it was not possible. Jayapal approached the state as well as the National Human Rights Commission, the Medical Council of India, and secretary of the health and family welfare department of the government of India. He also filed a consumer complaint before the national commission.

The commission served notices to the doctor and the hospital. However, they ignored the notices and the complaint was decided ex parte after the commission heard Jayapal, who argued the case himself.

The panel observed that there were gross discrepancies in the sonography report, the operation theatre findings, and the surgical pathology report. As per the sonography report, the anterior wall fibroid was 87x82 mm, but the operation notes mention it as a bulky uterus with multiple fibroids of size 25x15 cm, while the surgical histopathology report does not mention the presence of any fibroid. It questioned why both the ovaries were removed when the right one was normal with only a single fibroid, as per the sonography report. There was no explanation why an alternative line of conservative treatment was not adopted. The commission referred to various medical text books on the adverse effects of hysterectomy combined with removal of ovaries in patients below 40 years of age. It held that Kusuma's case was a deliberate misadventure, making her dependant on lifelong hormonal therapy.

> Every adult of sound mind has a right to determine what shall be done with her/his body, and a surgeon who performs an operation without the patient's consent commits an assault for which s/he is liable in damages. This holds good except in medical emergencies, where a patient is unconscious and it is necessary to operate without delay
>
> **The National Commission**

Mahesh Benkar

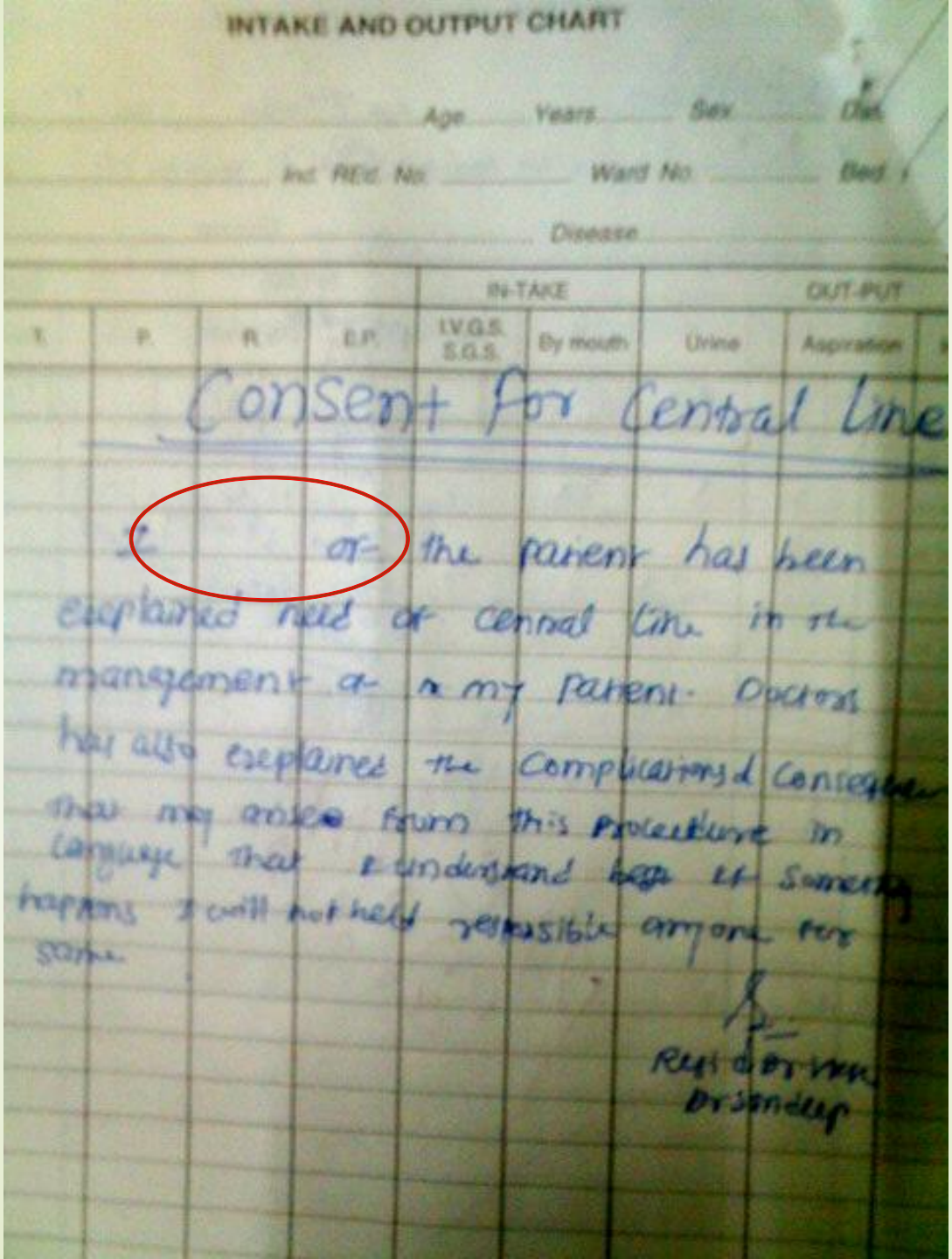
The commission elaborately dealt with the concept of consent. "It is not an event of obtaining signatures on paper before a patient submits to a particular treatment, but it is a process of communication. It is a proactive process of making sufficient disclosure, empowering the patient to consciously decide on what he or she considers best after understanding the pros and cons involved. Every adult of sound mind has a right to determine what shall be done with her/his body, and a surgeon who performs an operation without the patient's consent commits an assault for which s/he is liable in damages. This holds good except in medical emergencies, where a patient is unconscious and it is necessary to operate without delay.

The commission observed that studies conducted in India had revealed that a significant percentage of illiterate and lower-income group women had been referred to private hospitals by registered medical practitioners, who received kickbacks for the referrals. These women were made to undergo hysterectomies without their consents. In its November 12, 2009 edition, **TOI** reported about women in Chennai, some only 25 years old, being made to undergo hysterectomies to raise insurance claims. On July 31, 2010, **TOI** reported about how a group of 20-year-old girls from Kannanum village in Andhra Pradesh were being made to undergo hysterectomies for abdominal pain. Another newspaper had reported on August 27, 2012, that over 16,000 hysterectomies in Bihar, most unnecessary, had been done at private hospitals during the previous year to avail insurance benefits under the National Health Insurance Scheme—Rashtriya Swasthya Bima Yojna (RSBY). Under the scheme, a family below the poverty line is entitled to Rs 30,000 for hospitalization.

The commission also observed that private nursing homes used RSBY to cheat women and conduct unnecessary hysterectomies for petty monetary gains. Such surgeries can have disastrous effects, like osteoporosis and heart diseases, requiring women to undergo hormone replacement therapy that can cause depression. Castigating unscrupulous doctors for their "hippocratic oaths" and for removing the very essence of womanhood for monetary gains, the commission suggested that the ministry of health and family welfare and the Medical Council of India initiate stringent action against erring doctors to protect innocent women. It observed that ovaries and fallopian tubes are of distinct value to a female and removal of these would require separate specific consent. In its order on September 20, 2013, delivered by Dr S M Kantikar for the bench, along with Justice J M Malik, the commission indicted Dr Vulluri and the hospital of medical negligence and directed them to pay Rs 10 lakh compensation with 9% interest from the date of operation. If the order is not complied within three months, it would carry an additional further interest of 9%.

Impact: A doctor who operates without proper consent commits an assault on the patient, for which he is liable to pay compensation.

(The author is a consumer activist and has won the government of India's national watch award for consumer protection. His e-mail address is jehangirgai.articles@hotmail.com)



INTAKE AND OUTPUT CHART

Age Years Sex Dist.

Ind. REG. No. Ward No. Bed

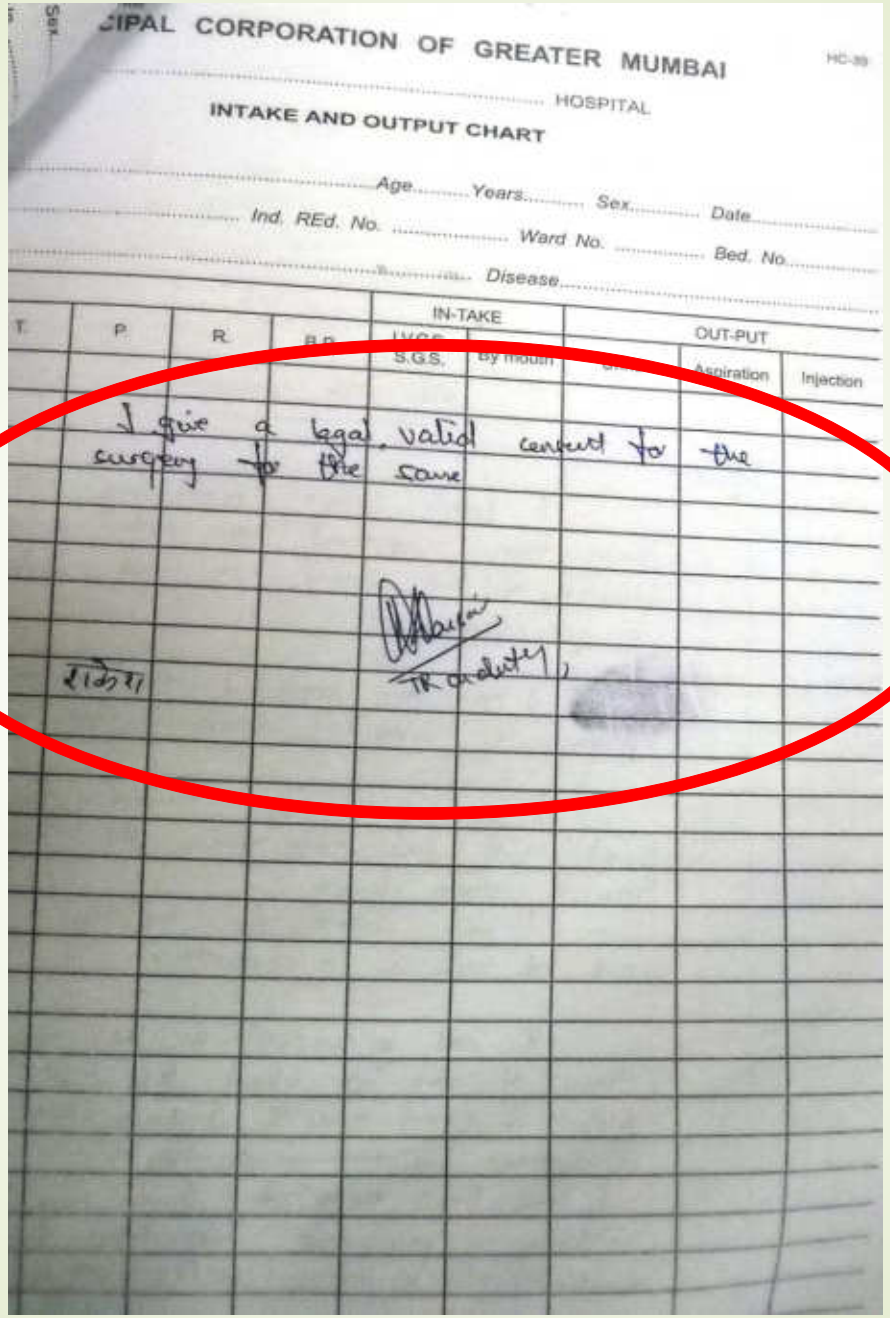
Disease

T.	P.	R.	B.P.	IN-TAKE I.V.G.S. S.G.S.	IN-TAKE By mouth	OUT-PUT Urine	OUT-PUT Aspiration

Consent for Central Line

I [redacted] of the patient has been explained need of central line in the management of my patient. Doctors has also explained the complications & consequences that may arise from this procedure in language that I understand. In case of something happens I will not held responsible anyone for same.

Relation with Dr Sandeep



CIPAL CORPORATION OF GREATER MUMBAI

HC-39

..... HOSPITAL

INTAKE AND OUTPUT CHART

..... Age..... Years..... Sex..... Date.....

..... Ind. REd. No. ..... Ward No. ..... Bed. No.....

..... Disease.....

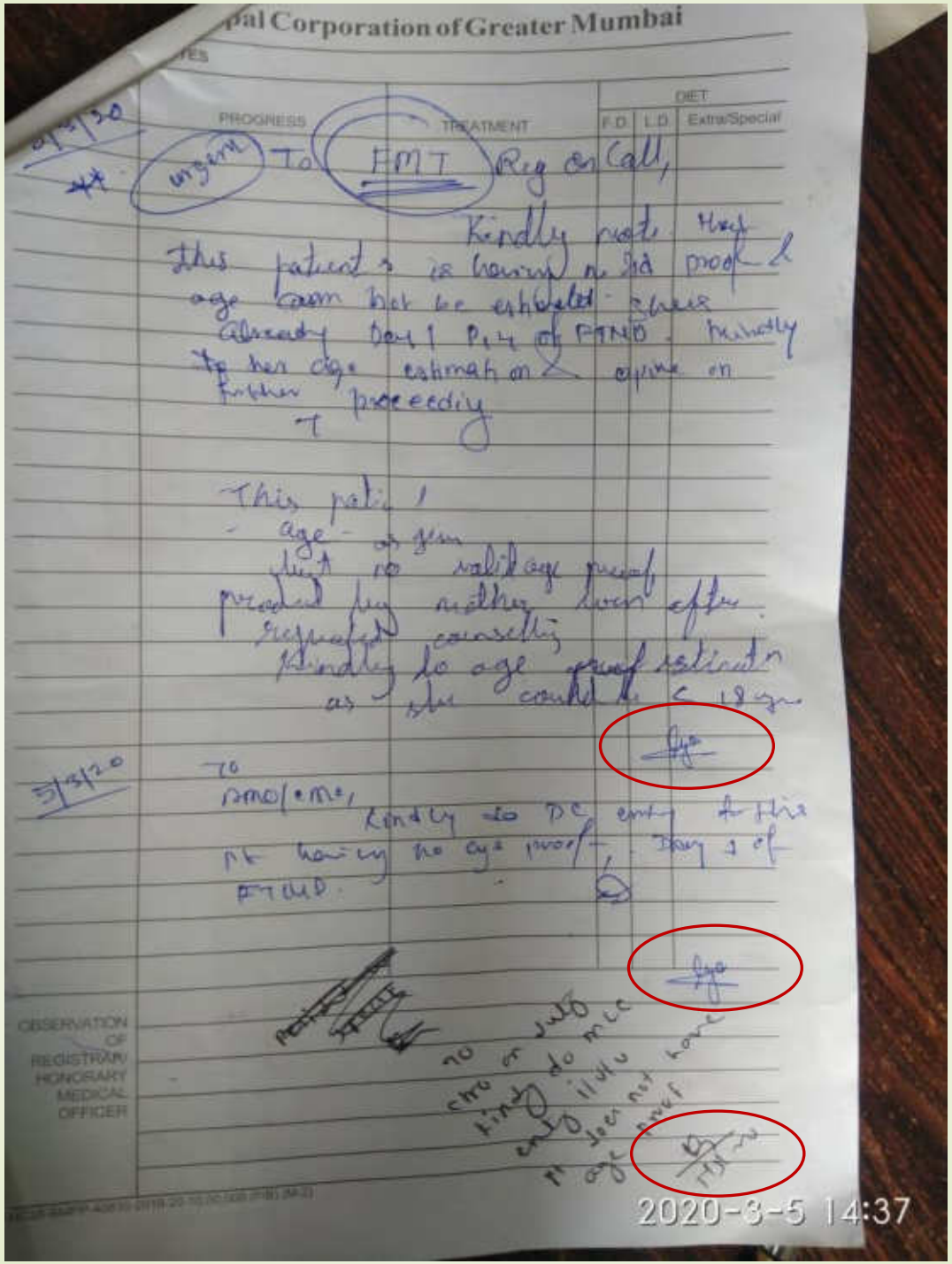
T.	P.	R.	B.P.	IN-TAKE		OUT-PUT	
				I.V.G.S. S.G.S.	By mouth	Aspiration	Injection
	I give a legal valid consent for the surgery to the same						

Consent

- Informed consent/therapeutic privilege
- Procedure specific consent
- Should be taken by the doctor doing the procedure and not the nurse
- Consent should be witnessed
- Date/time of obtaining the consent
- If obtained from relative –exact relationship should be mentioned as well as the reason for obtaining the consent from relative
- Verify patient and site of operation before starting

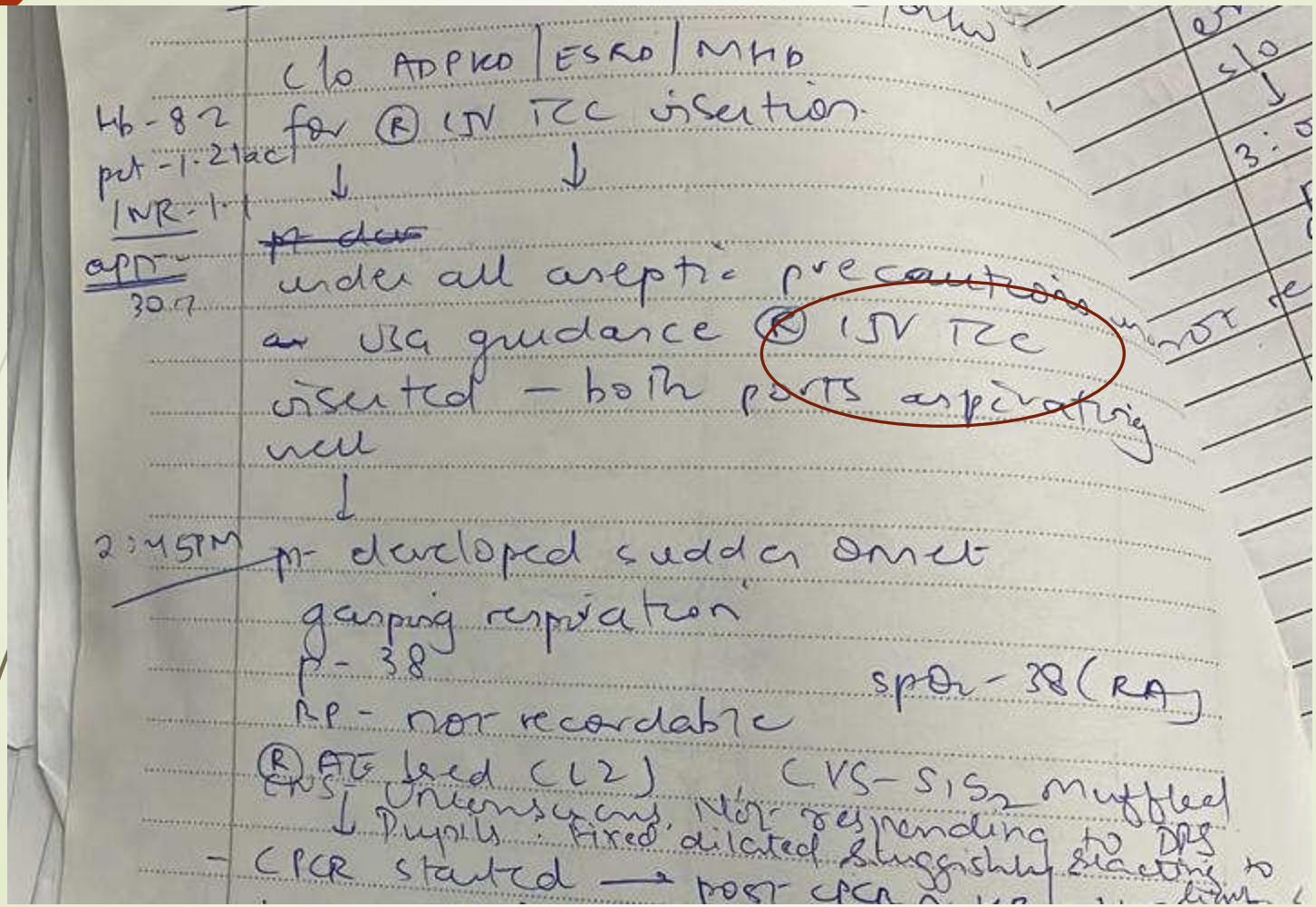
Post operative notes

- Should be properly written, name of procedure, name of doctors, name of anesthetist, details of procedure, date and time of starting and completing procedure, amount of blood loss, no. of blood unit given,
- Signature of principal surgeon


Corporation of Greater Mumbai
PROGRESS
TREATMENT
DIET
F.D.
L.D.
Extra/Special
To FMT Reg on Call,
Kindly note. Her proof &
age can not be established. She is
already Day 1 P+4 of PPROM. Mutually
decided to her age estimation & opinion on
further proceeding
This pati
age
valid age proof
mother
counselling
age proof
OBSERVATION OF REGISTRAR/ HONORARY MEDICAL OFFICER
2020-3-5 14:37

Declaration of death-

- After confirming the death of deceased
- I.V. line, saline, ventilator, monitors, oxygen masks etc. are removed … **BUT …**
- Death of the deceased is informed to near relative who is emotionally stable.
- If patient is critical or deteriorates –inform about it and prognosis to relatives


c/o ADPKD | ESRD | MHD
Hb - 8.2
plt - 1.2 lac
INR - 1.1
appt - 30.7
for (R) IJV TCC insertion
under all aseptic precautions
on USG guidance (R) IJV TCC inserted - both ports aspirating well
2:45PM pt developed sudden onset gasping respiration
P - 38
RR - not recordable
SpO2 - 38 (RA)
(R) ATC lead (L2)
CVS - S1S2 muffled
CNS - Unresponsive, Non responding to DPS
Pupils : Fixed dilated Sluggishly reacting to
- CPCR started → post CPCR

COD/MCCD

- Proper writing of the certificate
- Procedure in obtaining body
- Procedure if organs to be donated

When to certify death-

- Post operative where COD is not related to surgery in non MLC, tetanus, dog bite.
- After death- inform to senior, which senior
- What is the opinion of the senior ?

Medical certification of cause of death?

Births & Deaths Act 1969 Section 10(3) - Medical practitioner shall, after the death of the person, forthwith, issue without charging any fee, stating the cause of death to the best of his knowledge and belief.

Rules for issuing death certificate –

- Should be issued by the doctor who Attended deceased during life 14 days prior to death
- Satisfied as to the cause of death
- Verify & ascertain – name, age, sex, religion, address etc.
- Incorrect entries –
    - Inconvenience to next of kin
    - Delay in finalization of death claims
    - Reimbursement of hospital bills
    - Insurance claims, Settlement of property claims
    - Release of gratuity

Medical certification of cause of death?

- Never withhold Death Certificate - May be prosecuted u/s 13 of Registration of death act.
- COD - IT IS TO BE FILLED AS PER ICD11
- CARDIO-RESPIRATORY FAILURE – Not a cause of death
- Don't write 2 or more conditions on a single line
- Write the name of condition as legibly as possible
- Avoid abbreviations to state cause of death
- Retain a carbon/duplicate copy for reference
- Institutional doctors should fill in form no. 4

International Format

CAUSE OF DEATH		Interval between onset & death approx.
I. Immediate cause: State the disease. Injury or complication which caused death, not the mode of dying such as heart failure, asthenia, etc.	(a). . . . . . (due to (or as a consequence of)	
Antecedent cause : Morbid conditions, if any, giving rise to the above cause, stating the underlying conditions last.	(b) . . . . . . (due to (or as a consequence of) (c)	
II. Other significant conditions contributing to the death, but not related to the diseases or conditions causing it.	. . . . .	

Revised Form of Medical Certificate in the revamped system of civil registration w.e.f 1.1.2000

Form 4 for hospital deaths

1. Name of the Hospital
2. Name of the deceased
3. Sex(Male/Female)
4. Age at death
5. Cause of Death
   - 1(a) Immediate cause of death
   - 1(b) Antecedent cause of death
   - 1(c) Underlying cause of death
6. Internal between onset and deaths
7. Manner of death
   (1. Natural, 2. Accident 3. Suicide, 4. Homicide, 5. Pending investigation)
8. How did the injury occur?
9. Whether death related to pregnancy?

Form 4A for Non-hospital deaths

1. Name of the deceased
2. Sex(Male/Female)
3. Age at death
4. Cause of Death
   - 1(a) Immediate cause of death
   - 1(b) Antecedent cause of death
   - 1(c) Underlying cause of death
5. Internal between onset and deaths
6. Whether death related to pregnancy?

FORM NO. 4 (See Rule 7)

MEDICAL CERTIFICATION OF CAUSE OF DEATH

(Hospital in-patients. Not to be used for still births)

To be sent to Registrar along with Form No. 2 (Death Report)

Name of the Hospital **B. Y. L. Nair Ch. Hospital, Dr. A. L. Nair Road, Mumbai** I hereby certify that the person whose particulars are given below died in the hospital in Ward No. 19 LD) SAU on 1-6-2006 at 8 a.m. (change as per Jawab No. ...6/06 ...)

NAME OF DECEASED GODINHO JOSEPHINE & VINCENT					For use of Statistical Office
Sex	Age at Death 64 y				
	If 1 year or more age in Years	If less than 1 year age in Months	If less than one month, age in Days	If less than one day, age in Hours	
1. Male ✓2. Female	64 y				

CAUSE OF DEATH A CASE OF		Interval between on set & death approx.	For use of Statistical Office
I Immediate cause State the disease, injury or complication which caused death, not the mode of dying such as heart failure, asthenia, etc.	URINARY TRACT INFECTION (a) Due to (or as a consequence of) WITH ARF WITH UROSEPSIS	DOA 29/5/06 8.00 PM	
Antecedent cause Morbid conditions, if any, giving rise to the above Cause stating underlying conditions last.	(b) ...... Due to (or as a consequence of) (c)	DOE 1/6/06 8.00 AM	
II Other significant conditions contributing to the death but not related to the disease or conditions causing it	......		

Manner of Death How did the injury occur?

✓1. Natural 2. Accident 3. Suicide 4. Homicide 5. Pending investigation

If deceased was a female was the death associated with pregnancy? 1. Yes 2. No

If yes, was there a delivery? 1. Yes 2. No

Rubber stamp **B. Y. L. Nair Ch. Hospital, Dr. A. L. Nair Road, Mumbai** — Name and Signature of the Medical Attendant certifying the cause of death Dr FARHAN ... (MBBS) ...

Registration No. ...... Date of verification ......

SEE REVERSE FOR INSTRUCTIONS

(To be detached and handed over to the relative of the deceased)

Certified that Shri/Smt./Kum. GODINHO JOSEPHINE S. S/o/W/o Daughter of Shri VINCENT SEBASTIAN R/O B/3 MAURIA ... ANMOL APT ... NALA SOPARA was admitted to this hospital on 29/5/06 8.00 pm and expired on 1/6/06 8 A.M. ...

Name of Hospital B. Y. L. Nair Ch. Hospital, Doctor Dr. FARHAN ... NAIR HOSPITAL

Example 1. Simple situation

Part-I	(a) Peritonitis (b) Perforation of Duodenum (c) Duodenal ulcer	2 days 3 days 6 months	ICD codes
Part-II	Carcinoma of bronchus		

Complicated situation:

A lady aged 23 years was admitted to a hospital. She had H/O suicidal burn- because of pouring of kerosene and burnt herself. O/E patient had 78% burn (superficial & deep). She developed septicemia and died after 3 days of admission.

Part-I	(a) Septicemic shock (b) Burn 78% (Deep & superficial) (c) Intentional self-harm by fire and flames	3 days 3 days By 3 days back	ICD codes
Part-II	NIL		

Manner of death

1. Natural, 2. Accident, *3 . Suicide*, 4. Homicide, 5. Pending investigation

When to ask postmortem ?

- **A death that is '…caused by external causes –** injury or **poisoning… which includes death… due to intentional injury** such as homicide or suicide, and death caused by unintentional injury in an accidental manner.
- Accident
- Suicide
- Homicide
- Misadventure
- Being attacked by insects, reptiles, fishes, lions, tigers, bears, stingrays, or other wild animals
- Adverse outcome of surgery (note that this is not failure of surgery)
- Negligence
- Terrorism
- War

Doubtful conditions

Example
Situation 1: A 55 yrs, old patient known case of Diabetes, hypertension, ischemic heart disease gone for a party. And died their suddenly, relatives demanded a MCCD

Situation : 2 Same patient died at home.
Situation 3: Same patient died at your OPD.

Situation 4: Same patient died at home and relatives did the final rituals now they demanding death certificate after some days.

Situation 5: Same patient died during transfer to higher center.

Usefulness of MCCD

- MCCD provides cause-specific mortality profiles and is a key indicator for analyzing the health trends of the population in a scientific manner.
- The information is of considerable use to public health planners, administrators, medical professionals and research workers.
- The information is made use of in the assessment of the effectiveness of public health programme.
- It is feedback for better health planning and management as well as for deciding priorities of health and medical research programme.

Mob attack

- Ways to avoid
- Information to admin/security
- Information to police

500 doctors hold up KEM

Express News Service

Mumbai, October 4: FIVE hundred doctors went on strike in the city's largest civic hospital, KEM in Parel, on Monday.

They were protesting an attack on Dr Amol Bhalekar of the Radiology department by a patient's attendants late on Sunday.

On night duty with 20 patients queuing up for an X-ray, Dr Bhalekar (25) was asked by a patient's relatives to be given "priority over others". When he refused, they attacked him.

The casualty register says the patient was drunk. The X-ray department was functioning without technicians or security guards.

Earlier on Sunday evening, mortuary attendant Shantaram Shinde was also allegedly manhandled by a private ambulance attendant.

Today, while emergency cases were attended to, work at the out-patient department crawled.

An attack a month

September 2, K B Bhabha Hospital: A teenager's death due to alleged negligence.

KEM doctors strike work after 5 colleagues are assaulted

Published: Tuesday, Feb 10, 2009, 12:27 IST
Place: Mumbai | Agency: PTI

Five doctors of KEM hospital were attacked by the relatives of a patient who died there

Resident doctors at the King Edward Memorial (KEM) Hospital here struck work on Tuesday over the alleged assault on five of their colleagues by relatives of a patient over an issue related to an autopsy.

"Five doctors were attacked by relatives of a patient who died late on Monday night," resident doctor and senior AMO Praveen Bangar said. "They assaulted the doctors over the issue of post-mortem."

The patient was undergoing treatment in the Central Mumbai hospital for the last 15 days, resident doctors said.

Gallery

Power-packed affair!

Patient Dies, Relatives Thrash KEM Doctor

Times of India
25 August 2010
By Sumitra Deb Roy
Mumbai, India

An injured Dr Tushar Dhakate being treated at KEM after the incident

Medical services at the city's largest civic–run hospital, KEM, came to a standstill on Tuesday after a group of angry relatives bashed up a doctor. About 400–odd post–graduate students–cum–doctors of the hospital went on a strike demanding an FIR against the alleged offenders.

It all started at 11 am after the death of Mangala Ekhande (55) who, hospital doctors claimed, was an "endstage" patient of renal failure. She was brought to the hospital in a critical condition on Monday afternoon.

According to her son, Arun, when Mangala was gasping for breath, Dr Tushar Dhakate did not show any urgency to treat her. "We pleaded with the doctor but he simply asked us to stand outside the ward," he said.

Doctor beaten up after patient's death in

May 21st, 2008 - 12:40 am ICT by admin (7 comments)

Hospital Cash Policy
Get Double Accident Benefit,
Benefit. Get a Quote & Buy N
RoyalSundaram.in/Hospital-Insuran

Attacks have turned Mumbai hospitals into security zones

TNN, Nov 25, 2009, 03.38am IST

Ruckus in hospital after boy's death

Family alleges medical negligence after 17 year old

ember 29, 2010 at 11:18:54 PM

ties of the Bhagwan Mahaveer J
kus after a 17-year-old-boy was

to the hospital from Bhagwan M
cations following an injection.

akesh, is the son of Seena Josep
ily is accusing the doctors of ne

Angry Mob Ransack Hospital in Bhayanda After Death of Youth.

Wednesday, September 15, 2010
By Suresh Golani

Agitated over the death of an eighteen year old year youth, a mob of 10 to 15 unidentified people ransacked parts of a private hospital in Bhayandar and manhandled the on duty staff members on Tuesday.

However family members of the deceased claimed that non of them was involved in the attack. Nazir Shaikh (18), a resident of Uttan village near Bhayandar, was admitted to the Kasturi Hospital in Bhayandar (west) on 6, September after he was run over by a dumper. However after treating the patient for over a week, the hospital authorities decided to refer him to KEM hospital in Mumbai on Monday evening. This decision by doctors was allegedly because they were not in a position of clearing the hospital dues, relatives of Nazir alleged.

Nazir was shifted to the Tirupati Hospital in Mira Road late on Monday night, where after battling for life for more than 18 hours, Nazir succumbed to his injuries at about 4 pm Tuesday, the news of his death reached the village at 5.30 pm.

Aurangabad: Youth presumed dead comes alive before funeral

Press Trust of India, Updated: September 17, 2010 07:17 IST

Aurangabad: A 22-year-old youth, who was declared dead, reportedly

'Dead' Baby Found Alive At Funeral Wake

11:45am UK, Saturday August 08, 2009

A father has described his shock at finding his 'dead' baby had come back to life when he said goodbye at the wake.

The hospital is expect

Miracle baby loses her battle for life

Infant who defied the odds and came back to life after being declar
Hospital on June 16, passed away at 12.30 am on Thursday

Mumbai Mirror Bureau

Posted On Friday, June 27, 2008 at 02:11:19 AM

The infant who was wrongly declared stillborn by a Sion Hospita
Thursday, dashing her father Bhagwan Gaikwad's dreams for her
his wife Aruna's first child after 10 years of marriage.

An inconsolable Gaikwad is now blaming the doctors. "Had the d
immediately after the delivery, she could have been saved. My
negligence. How do I tell my wife now that our only child is dead?" said Gai
in the hospital.

The baby died at 12.30 am on Thursday but Gaikwad was
unwilling to take away the baby's body till 5 pm, saying
were wrong dates of admission mentioned on the child
certificate. He took away his baby only when doctors co
him that they were only following technical procedure whe
they mentioned June 17 as the date of admission.

Relatives cremate wrong body due to hospital error

09-07-2010 | News - City

Families of two class four CR employees who died on the same d
bereavement to deal with. Thanks to the callousness of the st
Hospital, one of the bodies was handed over to the wrong f
cremated before...

How to prevent it?

- Doctors and paramedical staff should have training to tackle tricky situations through better communication skills.
- appropriate method to inform the patients and relatives adequate information about the disease process and the treatment options with all potential complications at all stages.
- encourage decision making by the patients and relatives.

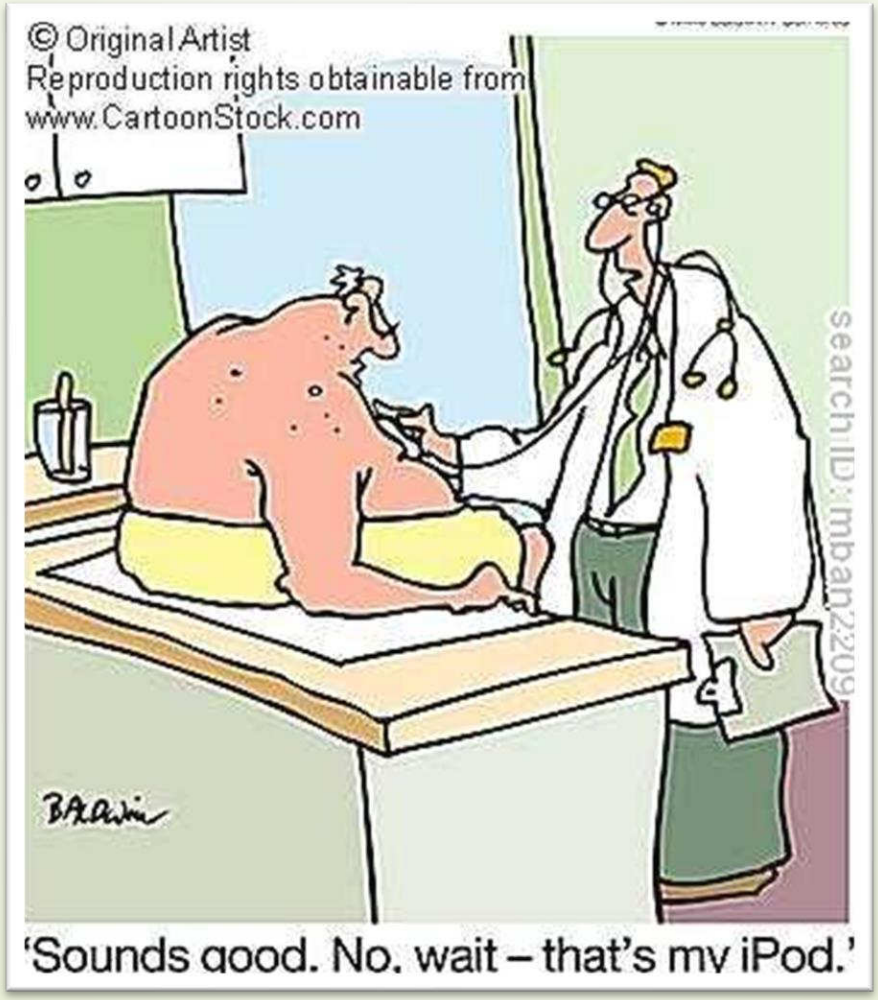
How to prevent it?

- Any complaint about lack of attention by medical or paramedical staff should be promptly looked by senior administrator and he should interact with the patient and relative at the earliest.
- The hospitals must have an open mind about allowing second opinions and they should not shun away patients who asked for a second opinion.
- Senior doctors should deal with delicate tasks (which resident medical officers are usually entrusted) such as communicating the news of a relative's death, negotiating for permission to do a post-mortem and explaining what has happened inside the operating theatre or emergency room.
- Legislation against hospital attacks with provision for stringent punishment should be passed by all states without delay.

Suggested changes in behaviour

- Need to improve conditions in hospitals and to communicate tactfully with patients.
- There should be more staff on the frontline to give more attention to patients and relatives.
- primary problem is a high patient load and adverse working conditions, which make it impossible for residents to provide adequate care and also communicate with patients and their relatives.
- Trouble-shooting must focus on the one or two troublemakers in the crowd to defuse the situation
- Shortages and planning issues need to be addressed to ensure better efficiency
- improving the conditions in which residents live and work. These included providing them with better accommodation, ensuring that they get breaks for eating and resting.

Thank You


© Original Artist
Reproduction rights obtainable from
www.CartoonStock.com
searchID: mban2209
'Sounds good. No, wait – that's my iPod.'

Hospital Administration

By Dr. Sarika P (Jambhore)

M.B.B.S,D.G.O,

P.G.D.H.H.M,P.G.D.M.L.S,

MPHIL IN HOSPITAL AND HEALTH SYSTEM (BITS PILANI)

(Sr. Medical Officer and Nodal officer-Covid-19, B.Y.L. Ch. Nair Hospital)

MCO (MJPJAY / PMJAY / JSSK / PMKVK)

Nodal Officer Disaster Management

Organizational Structure of the Hospital

- Administration services
- Informational services
- Therapeutic services
- Diagnostic services
- Support services

Administration Services

- Managing and overseeing the operations of all the departments
- Budgeting and finance
- Establishing hospitals policies and procedures
- Performing public related duties
- Human resource Management
- Ancillary services
- Managing kitchen, laundry, CSSD, etc

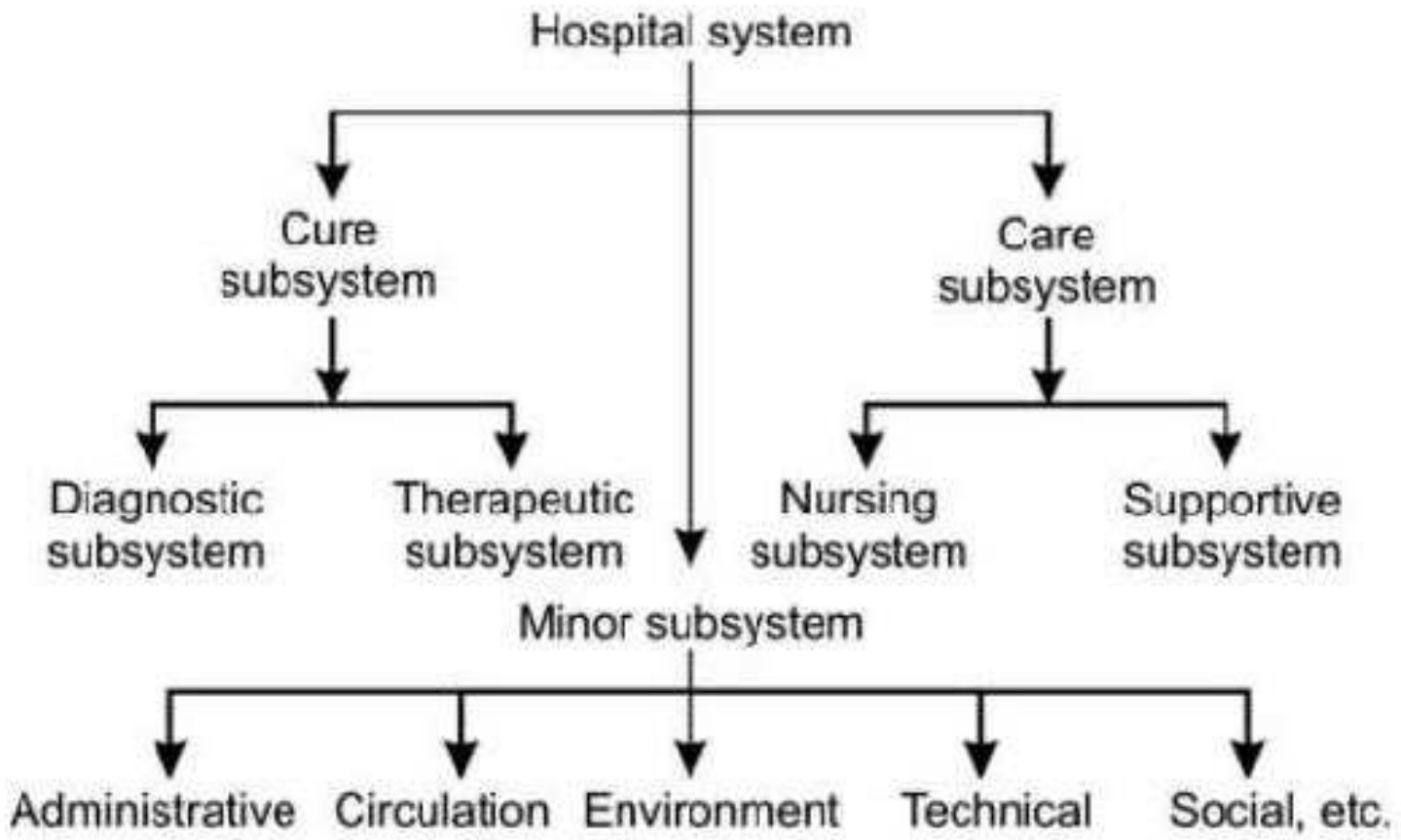
Informational Services

- Admissions, documentations and processing information
- Billing collection department
- Medical records
- HMIS
- Health Educations
- HRM

Therapeutic Services

- Social services (MSW)
- Pharmacy (Dispensary)
- Diet
- Nursing

Hospital Administration as a System



Intramural and Extramural Functions

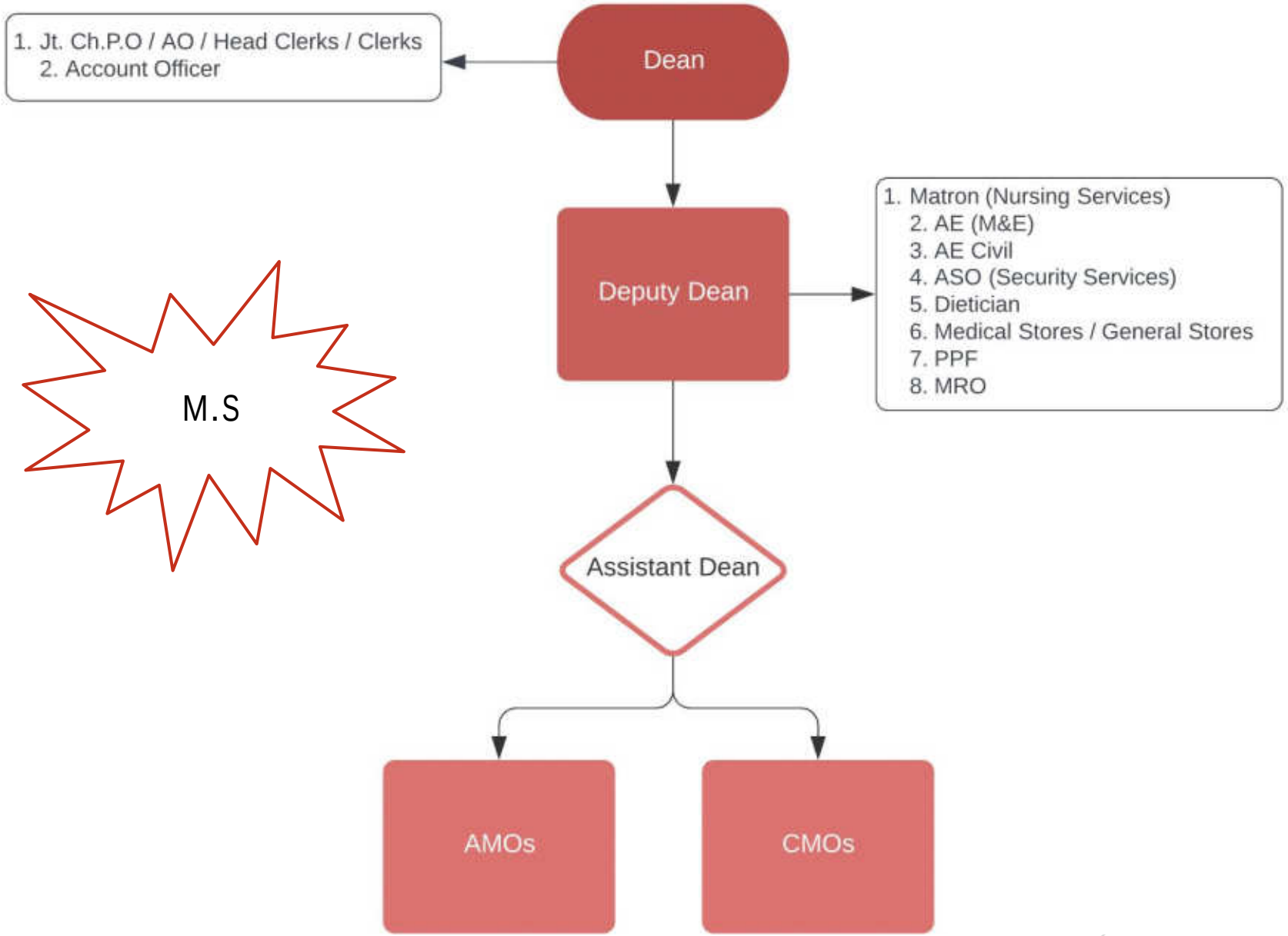
Intramural Functions of a Hospital

1. Restorative
   a. Diagnostic : These comprise the inpatient service involving medical, surgical and other specialities, and special diagnostic procedures.
   b. Curative : Treatment of all ailments
   c. Rehabilitative : Physical, mental and social rehabilitation
   d. Care of emergencies : Accidents as well as diseases
2. Preventive
   a. Supervision of normal pregnancies and childbirth
   b. Supervision of normal growth and development of children
   c. Control of communicable diseases
   d. Prevention of prolonged illness
   e. Health education
   f. Occupational health
3. Education
   a. Medical undergraduates
   b. Specialists and postgraduates
   c. Nurses and midwives
   d. Medical social workers
   e. Paramedical staff
   f. Community (health education)
4. Research
   a. Physical, psychological and social aspects of health and disease
   b. Clinical medicine
   c. Hospital practices and administration

Extramural Functions of a Hospital

1. Outpatient services
2. Home care services
3. Outreach services
4. Mobile clinics
5. Day care centre
6. Night hospital
7. Medical care camps

Hierarchy of Hospital Administration



Important Statistics

- Total no. of beds - 1623
- Total no. of ICU beds - 134
- Total no. of OPDs - 42
- Total no. of OT tables - 40
- Daycare services - Chemotherapy, Radio therapy
- Important paraclinical services - Occupational therapy, Physiotherapy, OT, PT, AST
- Budget Allocation for the year 2022 - 23 - 48 cr

Engineering Services

- Maintenance of important medical gases, oxygen plants, electrical services, lifts, AC services, etc. (M&E)
- Civil – Water supply, internal road maintenance, building maintenance, civil constructions, plumbing, SWD, etc.
- ME cell – Maintenance of all medical equipments

Oxygen Delivery System

- Four LMO tanks of 6.3 Kl, 6.3 Kl, 6.3 Kl and 11 Kl
- Two PSA plants of 3,000 LPM capacity
- 500 jumbo cylinders accounting to 7,100 litres
- 500 small oxygen cylinders of 1,320 litres
- Total storage capacity is 49.30 metric ton
- Total average consumption around 8 to 10 metric tons per day.

Medical Gas Supply System

(MGPS)

Central MGPS vital and integral part of a modern hospital, emphasis on safety, reliability and purity of the gases.

The central piped medical gas system is one of the newer types of hospital plumbing systems to be introduced into the delivery of direct patient care.

Medical Gas piping is needed for oxygen, nitrous-oxide, medical air, nitrogen, carbon dioxide, vacuum and anesthesia waste exhaust.

Piping from a central location directly to outlets,

1) designed and installed under strict national regulations
2) provides high level of safety
3) easier quality control
4) Removes obsolete, bulky and dangerous pressurized cylinders from the patient's bedside.
5) pressure regulation because all gases are delivered from centralized pumps, compressors or cylinder manifold systems.

ADVANTAGES
CENTRALISED MEDICAL GAS DELIVERY SYSTEM

PATIENTS' PERSPECTIVE:

Uninturrupted & clean gas supply at desired locations

No distressing sign of oxygen cylinder at bed side.

Elimination of noise produced by their movement.

Protection of sterile areas from contamination caused by use and movement of cylinder.

HOSPITAL STAFFS PERSPECTIVE

Instant availability of gas.

Clean, Safe, Reliable delivery of gases.

Continuous flow of gases, when and where required.

Minimal accident hazards due to mishandling of cylinders.

HOSPITAL ADMINISTRAOR PERSPECTIVE

Easy purchase of gases in bulk quantities at favorable term.

Economy on purchase of cylinders.

Fewer breakages

Minimum damages to building due to handling of cylinder.

Rationalization in ordering, storing and transporting.

Oxygen System:

It shall consists of the following :-

Liquid Oxygen System (optional) –
Oxygen Manifold System with Automatic Control Panel
Oxygen Emergency supply system

Oxygen Manifold

* It is the central supply room consists of cylinder manifold and a control panel.
* The manifold may be as small as two banks of 2 cylinders each or as large as two banks of 20 cylinders each.
* The control panel consists of primary and secondary pressure regulators, to ensure delivery of gas to the pipe line at required pressure.(61 PSI)

Alarm System

Two kinds of alarm are usually incorporated in system in the centralized medical gas system.

One monitor the pressure it becomes red when pressure is low.

The other alarm is remote signal lamp. It is preferably both visual and audible.

Pipeline distribution system

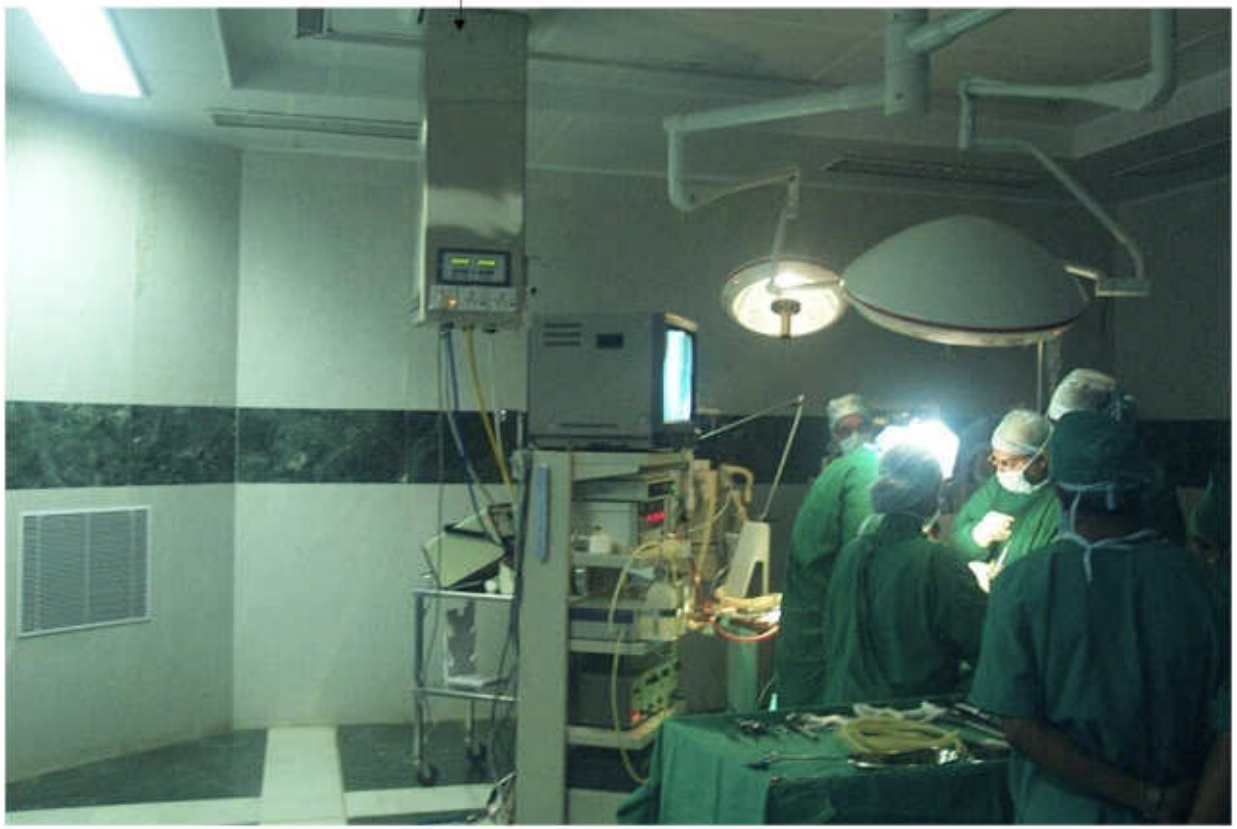
TERMINAL UNITS

The pipe line ends in the terminal units:

Wall Outlets- self sealingvalve at outlet point is fixed to the wall and is encased in a small rectangular shaped boxed labeled and colored for instant identification.

Its use is established as soon as a safety key plug connector is inserted in to it. It should be atleast 20 cm away from electrical fitments.

Ceiling Pendents



Safety measures for medical gas delivery system

a.Safety valves provided to be set at 1.5 times the working pressure

b.Locknut provision on regulators for preventing inadvertent high-pressure settings

c. Two stage regulators for avoiding fluctuation in flow

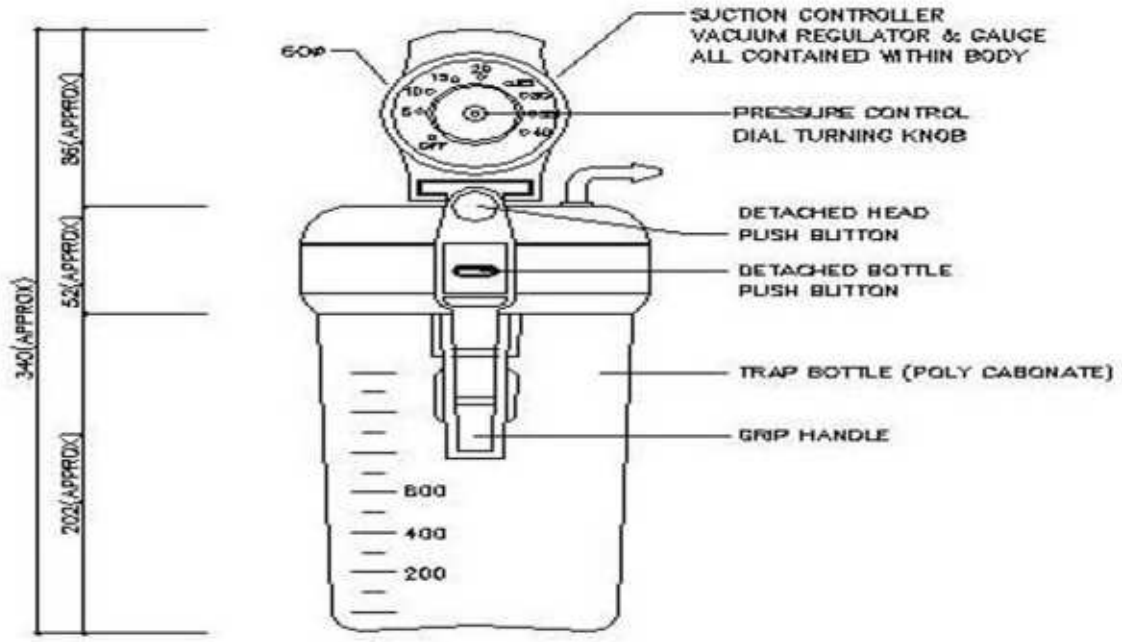
d. Line pressure alarms for continuous monitoring pipeline pressure
e. Gas specific color-coding in each pipeline

f. Gas specific color-coding on cylinders.

g. Specific color-coding on each outlet
h. Non-interchangeable adaptor for each outlet

Vacuum (suction) system

Vacuum system shall be stack mounted ---------- cfm capacity. (as per requirement of the hospital)



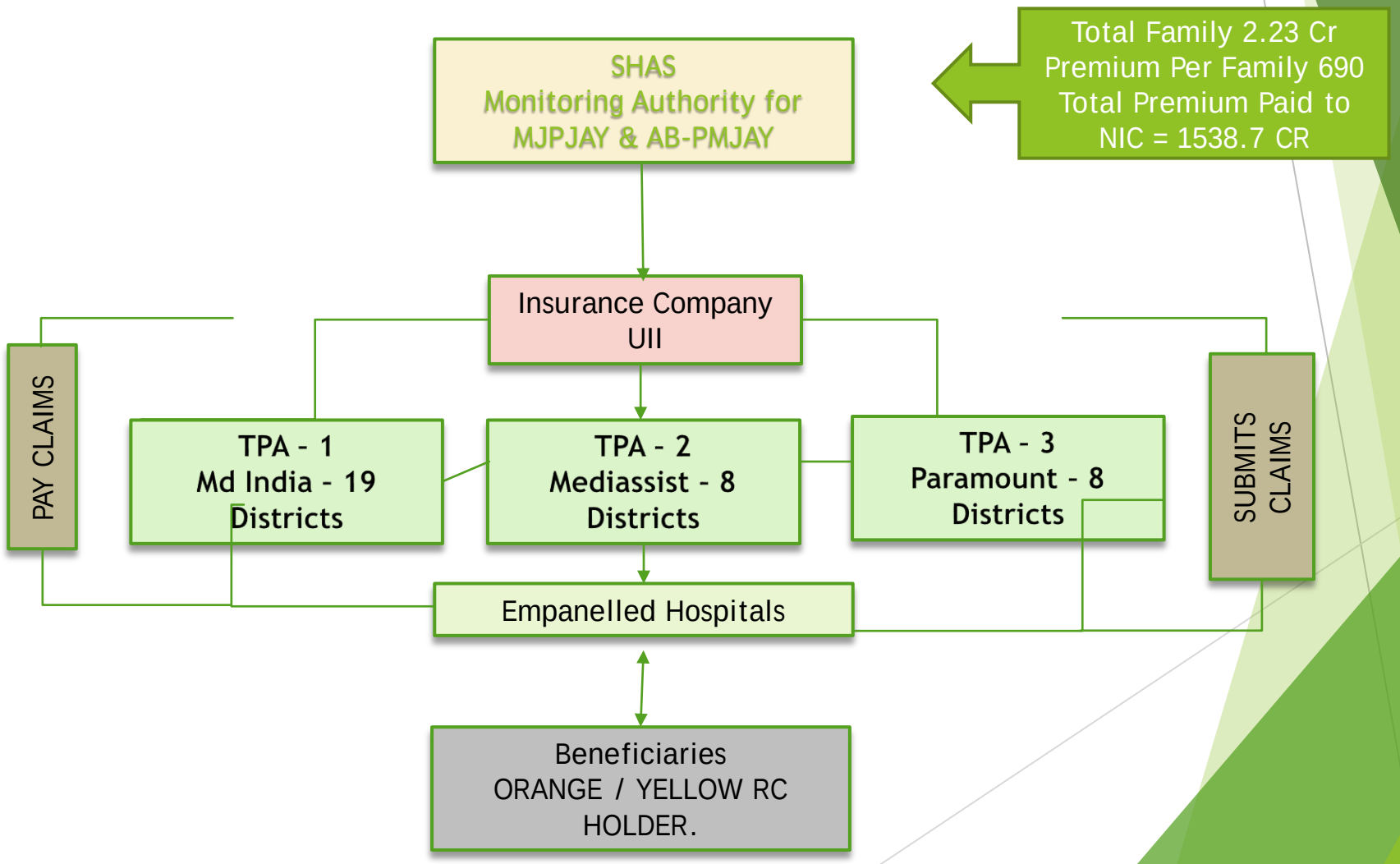
WALL HANGED TYPE SUCTION UNIT


NO SMOKING
+ MEDICAL OXYGEN +
MOX


AIR COMPRESSOR NO. 1
VACUUM PUMP

Mahatma Jyotiba Phule Jan Arogya Yojna

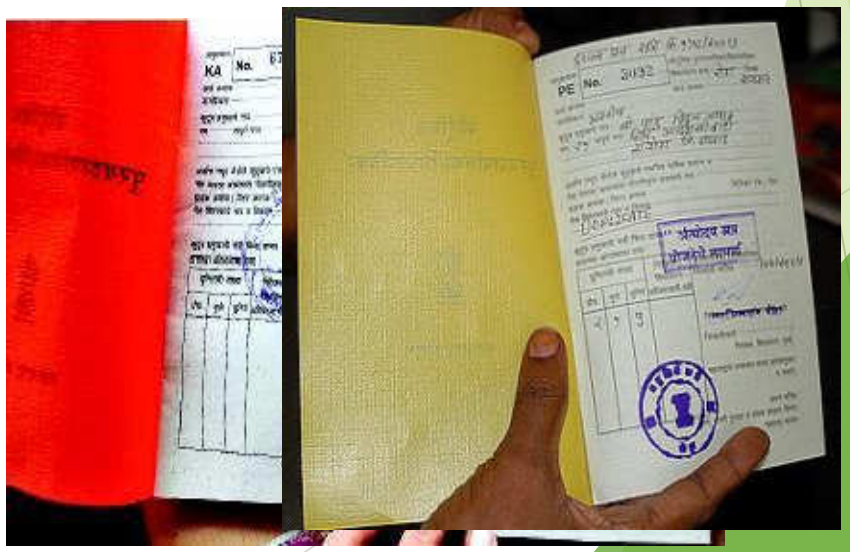
MAHATMA JYOTIRAO PHULE JAN AAROGYA YOJANA



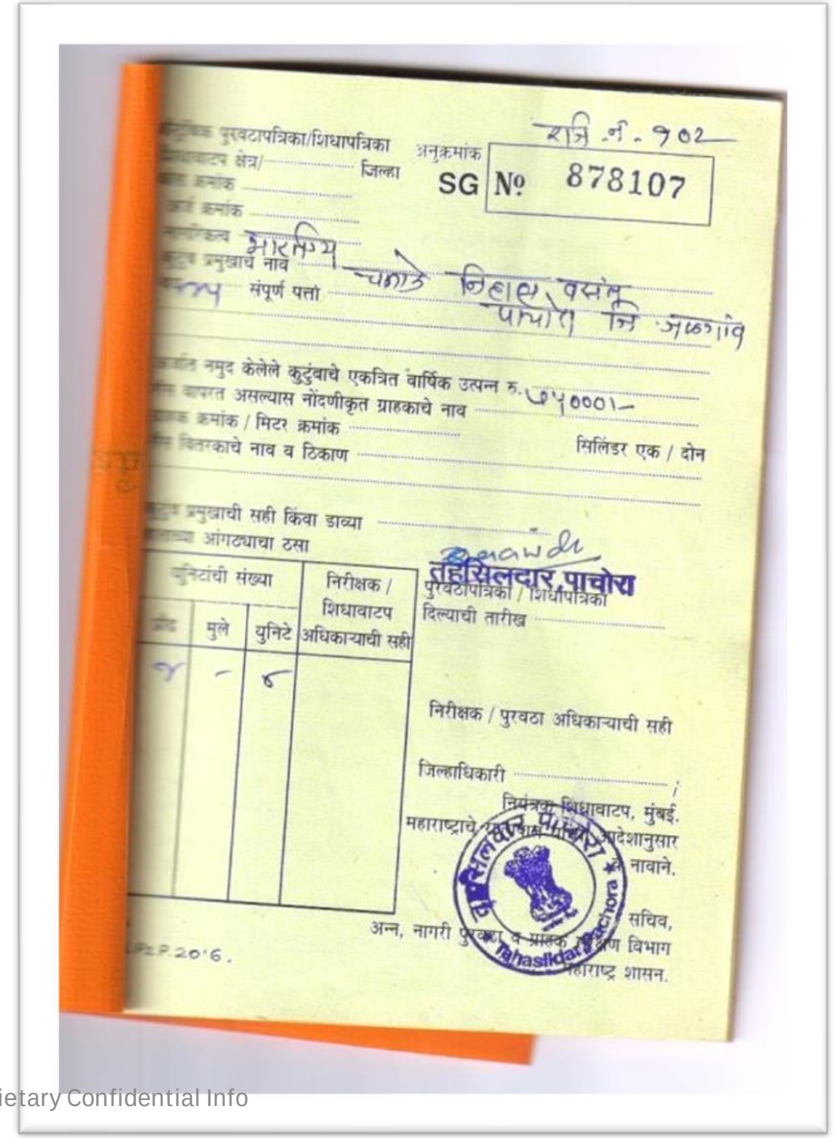
OBJECTIVES & BENEFICIARIES OF THE SCHEME

- To improve medical access of
- Below Poverty Line (BPL - Yellow Card Holders)
- Above Poverty Line (APL - Orange card Holders) families.
- To provide Quality health care for identified specialty services requiring hospitalization for surgeries through Network hospitals.
- Families holding

- Yellow Ration cards (BPL Families)
- Antyodaya Anna Yojana card
- Orange Ration cards (APL Families)
- Annapurna card
- Pink Ration Cards (Temporary Ration Card)
- Digitized Ration Card
- White ration card (Only Farmer) issued by Maharashtra Govt…..



MJPJAY DOCUMENT'S REQUIRED



शिधापत्रिका/शिधापत्रिका अनुक्रमांक SG No 878107

जिल्हा

संपूर्ण पत्ता

सिलिंडर एक / दोन

तहसिलदार,पाचोरा

पुरवठापत्रिका / शिधापत्रिका दिल्याची तारीख

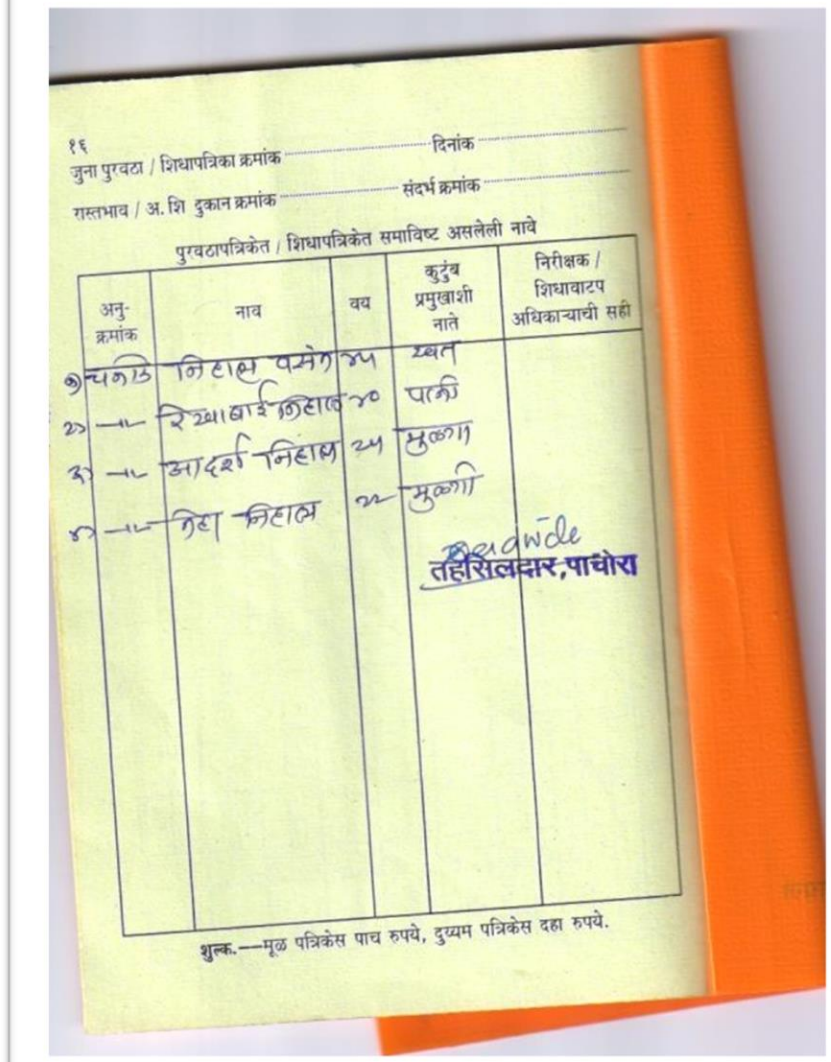
युनिटांची संख्या			निरीक्षक / शिधावाटप अधिकाऱ्याची सही
प्रौढ	मुले	युनिटे	
२	-	५	

निरीक्षक / पुरवठा अधिकाऱ्याची सही

जिल्हाधिकारी

नियंत्रक, शिधावाटप, मुंबई.

सचिव,



जुना पुरवठा / शिधापत्रिका क्रमांक ..... दिनांक .....

गस्तभाव / अ. शि दुकान क्रमांक ..... संदर्भ क्रमांक .....

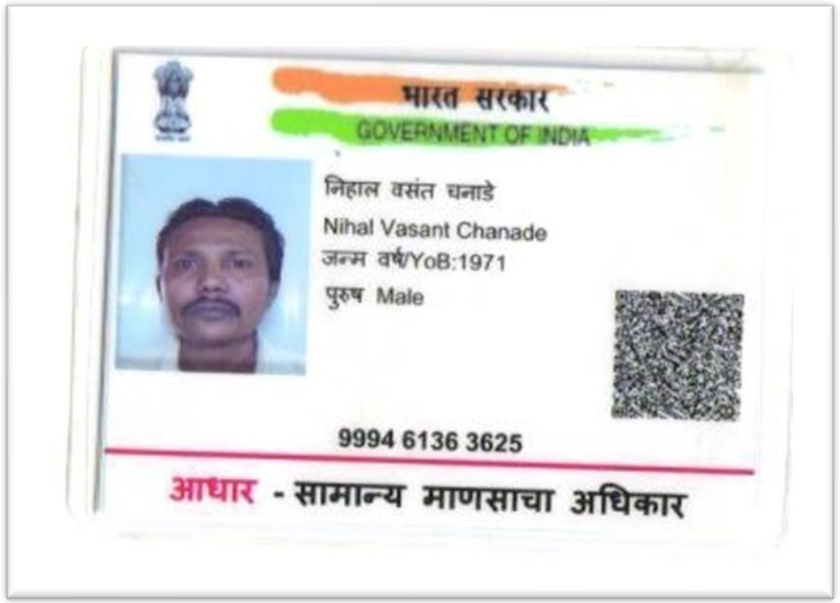
पुरवठापत्रिकेत / शिधापत्रिकेत समाविष्ट असलेली नावे

अनु-क्रमांक	नाव	वय	कुटुंब प्रमुखाशी नाते	निरीक्षक / शिधावाटप अधिकाऱ्याची सही
१	चव्हाण निहाल वसंत	३५	स्वत	
२	" रेखाबाई निहाल	३०	पत्नी	
३	" आदर्श निहाल	२५	मुलगा	
४	" रेहा निहाल	२	मुलगी	

तहसिलदार,पाचोरा

शुल्क.—मूळ पत्रिकेस पाच रुपये, दुय्यम पत्रिकेस दहा रुपये.

ID PROOF REQUIRED



PMJAY Golden Card

MJPJAY SCHEME SUM INSURED

- Scheme shall provide coverage for meeting all expenses relating to hospitalization.
- Coverage up to INR 1,50,000/- (per family on floater basis per year).
- Coverage up to INR 2, 50,000/- (for renal transplants).
- Procedures offered - Surgical & Medical procedures
- Total procedures covered till date are 971, covered systems: 30 systems
- 121 / 971 procedures are eligible for 1 Year Follow-up services
- 132 Govt. Procedures
- Covers Preexisting Diseases.

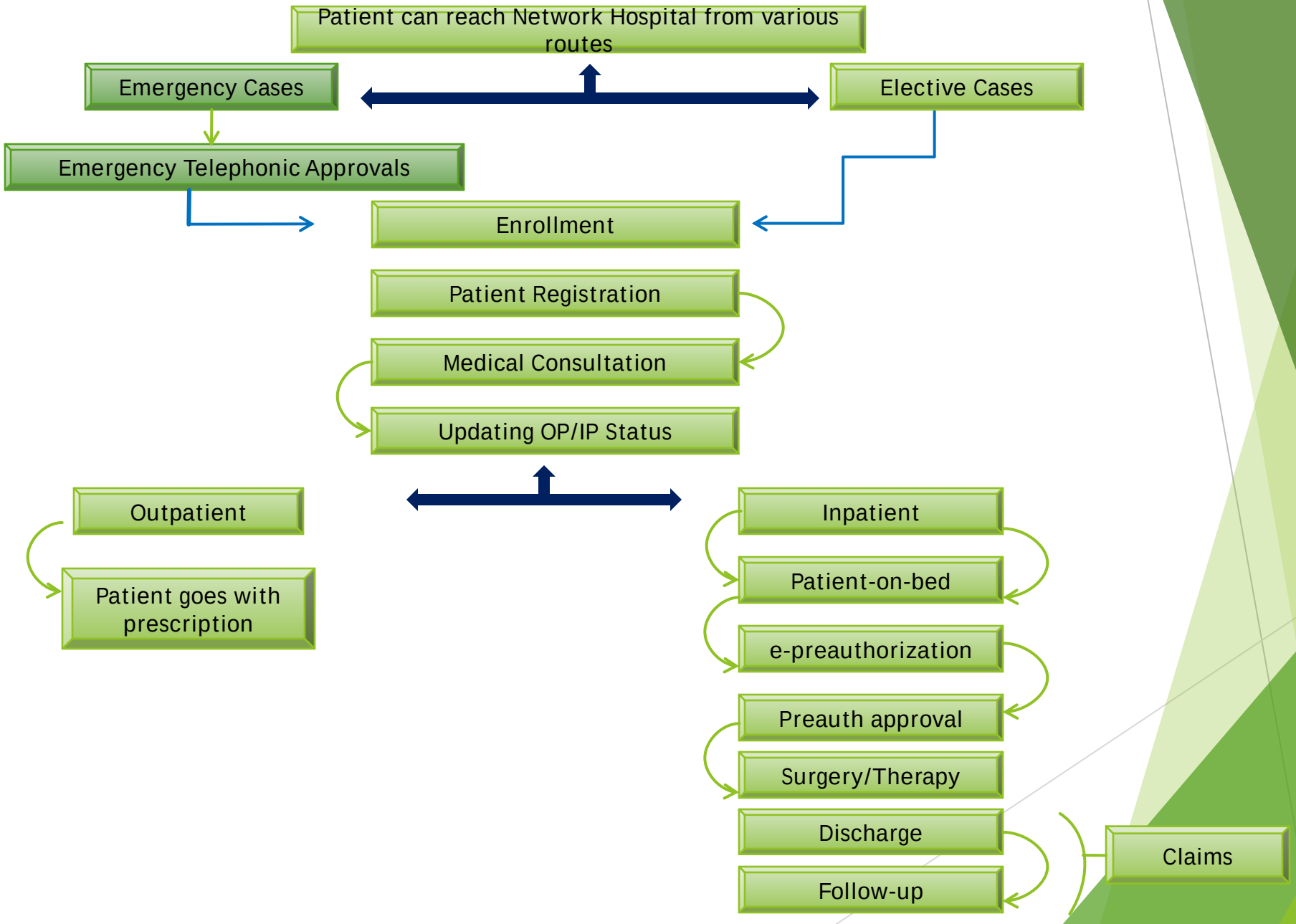
PACKAGE DETAILS

The package rates will include:-

* Bed charges in General ward
* Nursing and boarding charges
* Surgeons
* Anesthetists
* Medical Practitioner
* Consultants fees
* Anesthesia
* Blood
* Oxygen
* O.T. Charges
* Cost of Surgical Appliances
* Medicines and Drugs
* Cost of Prosthetic Devices
* Implants
* X-Ray and Diagnostic Tests
* Food to inpatient
* One time transport cost by State Transport or second class rail fare (from Hospital to residence of patient only)

In other words ENTIRE COST of treatment for patient from the date of
reporting to his discharge from the hospital and medicines for 10 days
after discharge.

Patient Flow

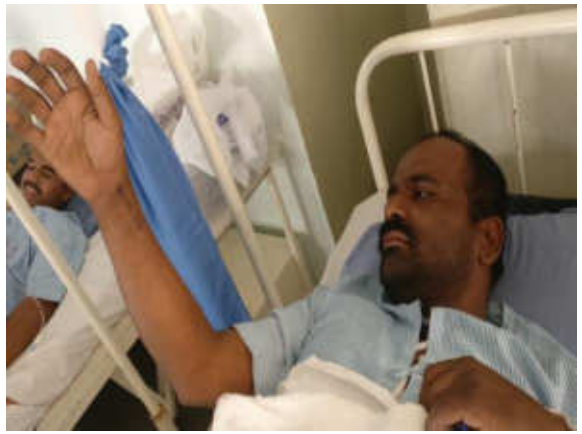


EMERGENCY TELEPHONIC INTIMATION

- As you aware Rajiv Gandhi Jeevandayee Aarogya Yojana made a provision in the scheme to ensure timely preauthorization in cases of life saving emergencies through emergency telephonic approvals.
- Provisional approval is given by collecting minimal essential data of the patient through call conference facility available round the clock between Treating Doctor / MCO / DMO, Executive, Pre-Auth Doctor.
- The person calling from Network hospital can be MCO /Treating doctor /Duty doctor who can furnish minimum details of the patient details and clinical findings.
- Network Hospital has to send preauthorization within 72 Hrs through emergency telephonic intimation ID, otherwise the emergency approval will be cancelled Automatically in the system and the status of the Telephonic intimation will change to 'Telephonic Intimation Cancelled'.
- In case of change in plan of surgery it is to be intimated through ETI within 6 hrs after surgery if not intimated then its claim gets rejected

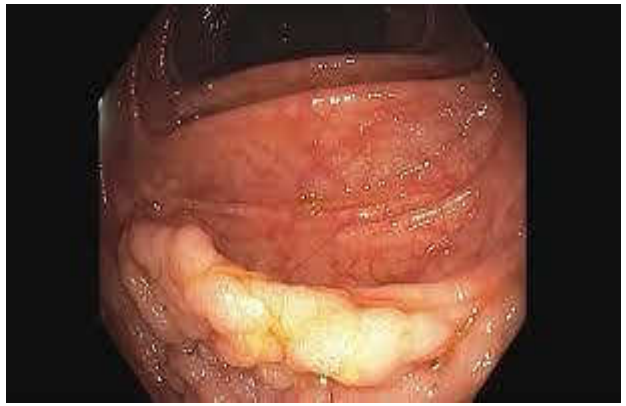
VARIOUS PHOTOS REQUIREMENTS

Discharge Photo

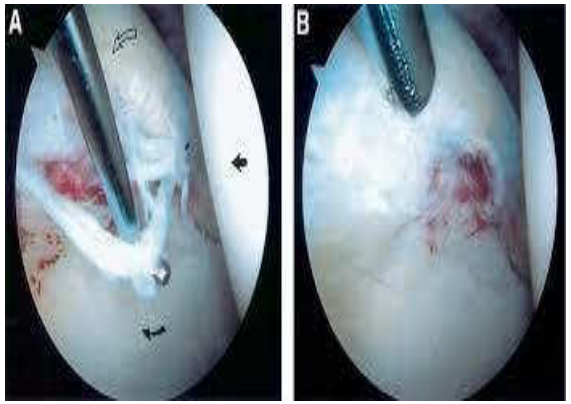


Scar Photo with Patient Face

On bed Photo



Endoscopic Image



Orthoscopic Image

Intra-Op Photo

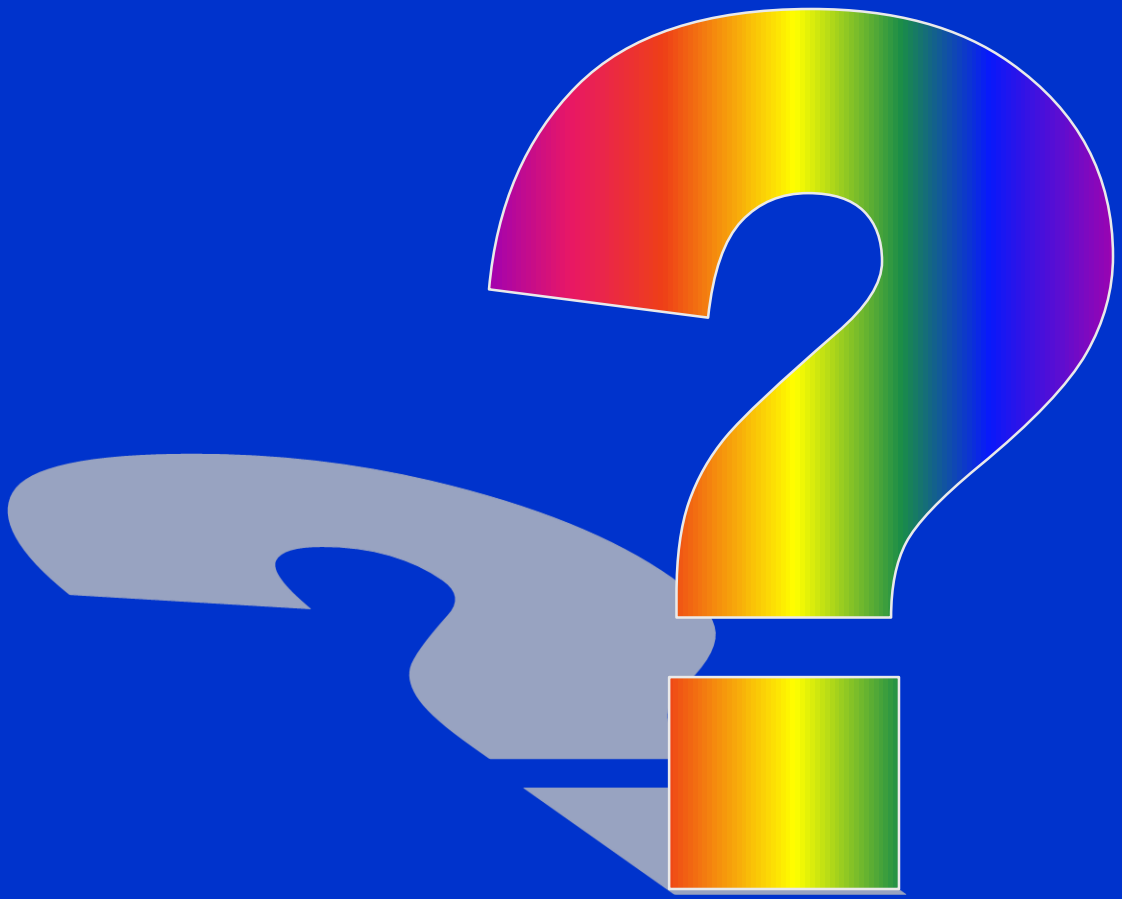
Thank you!

Resident as a Teacher

Dr. Ashwini Karve

Assoc Prof, Dept of Pharmacology

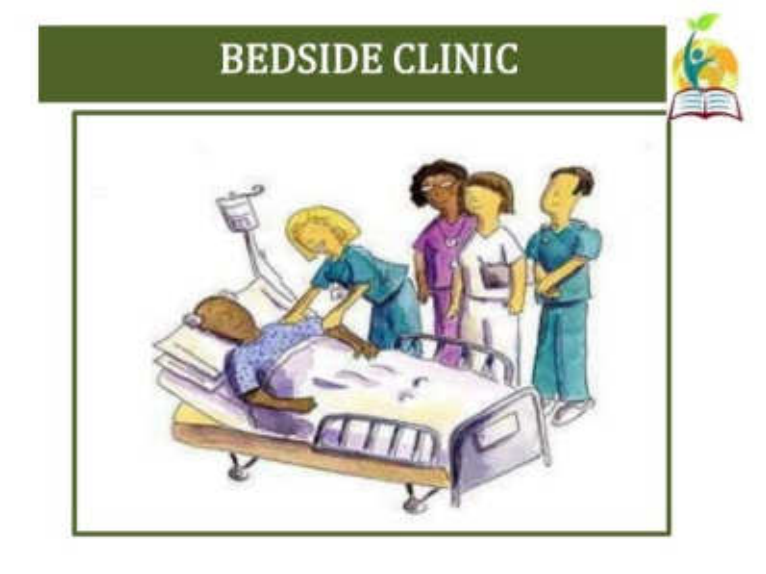
Secretary, MEU, TNMC



Good Teaching Practices

- Preparation of topic
- Good communication
- Role Model
- Level of students
- Content:
  - Simple → Complex
  - Familiar → Unfamiliar
  - Basic → Advanced
  - Problem → Solution

Small Group Teaching (SGT)



Practical

Tutorial

SGT: general points

- Interactive
- Participation of all students
- Integration between theory & practical
- Feedback
- Skill practice

“Tell me, and I forget.

Show me, and I remember.

Involve me and I understand.

Thank you

MEDICAL ETHICS

What Are ‘Medical Ethics’ ?

- Rules of etiquette adopted by the medical profession to regulate professional conduct with each other, but also towards their individual patients and towards society, and includes considerations of the motives behind that conduct.

- Moral framework governing ‘physician-patient’ relationship

Need

- Every clinical decision invokes an ethical decision as well
- In many instances, the ethical issue may not be readily apparent
- In others conflicts arise between ethical principles and medical decisions, which require the clinician to be well versed with the former in order to guide the latter.

Goals

Improve the quality of patient care by identifying, analyzing and attempting to resolve the ethical problems arising in clinical practice

Medical ethics are derived/expressed through :

1. Laws
2. Institutional policies and practices
3. Policies of professional organizations
4. Professional standards of care

Scope

- Promotion of ethical practices
- Prevention of ethical breaches
- Recognition of ethical dilemmas
- Resolution of ethical conflicts.

Principles

- Autonomy
- Beneficence
- Non-maleficence
- Justice

Autonomy

- “Deliberated self-rule”
- Obligation to respect patient’s choice
- Skillful communication is the key
- Need to provide sufficient information for them to make informed choices

Beneficence

- Acting always in the patients' best interest
- Maximum benefit
- Negotiate mutually acceptable plan of care

Non-maleficence

- ‘DO NO HARM’

- Refrain from providing ineffective treatments

- Refrain from acting malice towards patient

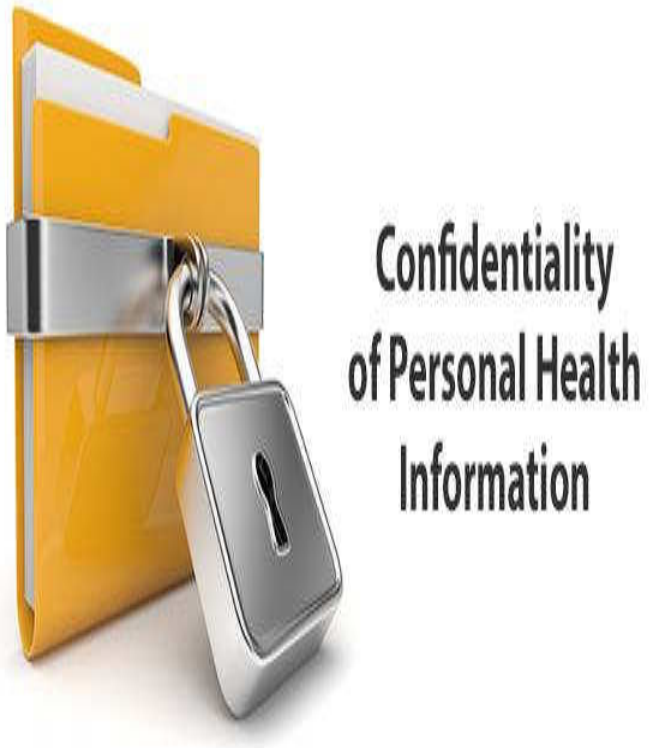
- Many beneficial therapies have serious risks then the question is whether risk outweighs the benefit?

Justice

- Treat all patients equally and fairly
- Equal distribution of resources, risks and benefits
- Actions must be consistent, accountable and transparent
- No discrimination on basis of age sex, religion and race

Confidentiality

- Obligation of physician to maintain information in strict confidence
- Based on loyalty and trust
- Exceptions : If confidentiality may result in greater social harm
- If revelation is required ethically and legally.



Consent in Medical Practice

Living patient

- Diagnostic procedures
- Treatment interventions
- Organ transplantation
- Disclosure of Medical records
- Clinical research
- Clinical photographs
- Teaching
- Medicolegal purpose

Dead patient

- Pathological autopsy
- Organ donation
- Disclosure of medical records

Patient's Consent

- Consent means provision of voluntary approval or agreement

- Consider: Age, mental capacity, understanding
- Disclose of full information
- Ensure Voluntary Acceptance
- Patient and Procedure specific

Informed Consent

- Condition (Disease/Diagnosis) of the patient
- Purpose and nature of intervention
- Consequences of such intervention
- Risk involved
- Alternatives available
- Prognosis in the absence of intervention
- Immediate and future costs involved

In understandable language

Types of Consent

- Implied consent
- Express oral consent
- Express written consent
    - Anaesthesia
    - Intervention / surgery
    - Blood and component transfusion
    - Special consent for permanent irreversible changes: Dismemberment of body part/ Disfigurement, Permanent colostomy
    - Special consent for religious /culturally sensitive issues: Shaving of head/ beard

Valid Consent

- Age
- Clear mentation: Not under sedation or intoxication
- Ability to understand
- Ability to remember
- Ability to decide
- In a language that person understands

Valid Consent

- Patient himself/herself if adult and competent
- Competent Legal guardian
- ‘STATUTORY SURROGATE’ in absence of legally authorized representatives

1. Spouse of patient
2. Adult child of patient
3. Parent
4. Brother/sister

Valid Consent

- Should be administered by treating doctor
- Treating doctor is responsible for consent
- No life saving procedure should be withheld for lack of valid consent - Documentation
- Two competent doctors and a representative on administration may sign consent form
- Loco parents of children in emergency

How to improve consent?

- Simplify our language
- Allow time for questions
- Make sure the patient understands
- Plan for language assistance
- Train support staff

Ethics in Clinical Research

- Social and clinical value
- Scientific validity
- Fair subject selection
- Favorable risk-benefit ratio
- Independent review
- Informed consent
- Respect for potential and enrolled subjects

Ensure that participants' rights are protected, particularly in vulnerable subjects

Institutional Review Board (IRB) Institutional Ethics Committee (IEC)

- A heterogeneous group of members who are qualified, experienced in their professional field and proficient enough to review and evaluate both scientific and ethical aspects

Role of Ethic Committee

- To protect the rights, safety and well being of patients
- To promote fair ethical policies and procedures
- Overview and monitor thoroughly, compliance of sites with Standard Operating Procedures (SOPs), regulations, guidelines and ETHICS

Consent in Clinical Research

- Purpose, methods, risks, benefits, alternatives
- Relation to their clinical situation or interests
- Decision to participate is voluntary
- No remuneration
- No financial burden
- Maintenance of privacy & confidentiality
- Right to withdraw
- Obligation to follow up / Report adverse events

Consent in Clinical Research

- Designated investigator administers consent
- Audio-visual recording if new chemical entity
- Witness if legal representative is involved
- In children 7 - 12 years : oral assent in the presence of a parent or legal guardian
- In children 13 – 18 years : written assent
- Waiver of consent: For retrospective data

Unethical practices

- Advertising
- Patents and copyrights
- Running an open shop
- Rebates and commissions
- Secret remedies
- Human rights- Causing mental or physical trauma
- Euthanasia

The Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002

Ethical V/S Legal Obligations

- Medical ethics and the law are not the same, but often help define each other

- Breach of ethical obligation may not necessarily mean breach of law

- Breach of ethical obligation may be used to prove medical malpractice or medical negligence

Malpractice

- Professional Duty which doctor owes to patient
- Breach in the duty
- Injury or harm resulting out of breach in duty
- Damages

Breach in Duty

Negligence

- Act of omission
- Act of commission

Error

Summary

- Ethics are moral rules for profession
- Four main principles are : Autonomy, Beneficence, Non maleficence and Justice
- Confidentiality and privacy should be respected
- Written, informed and valid consent must be obtained before any intervention
- No life saving treatment should be withheld for want of consent
- Research ethics involve protecting patients particularly vulnerable population
- Standard business practices of advertisement, discounts, commissions, running shops, distributing and accepting gifts are considered unethical in medical profession
- Unethical practices may lead to lawsuits with allegation of malpractice or negligence

MEDICINE IS ABOUT : CAN WE ??

ETHICS IS ABOUT : SHOULD WE ??

YOUR CHOICE MAKES A DIFFERENCE

THANK YOU

❑ INTRODUCTION TO HMIS.

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HOSPITAL MANAGEMENT INFORMATION/ SYSTEM (H

Hospital management Information system (HMIS) by INSPIRA / MANORAMA / DYNACONS and MCGM introduce accuracy and precision in medical record by removing paper work and storing all type of data digitally.

We customize HMIS as per the specific requirement of the healthcare center. Our technology specialists configure hospital management information system to serve the exact purpose and meet the objectivity of the installation.

We aim to maximize the capabilities of hospital multi-specialty, clinics and doctors and medical practitioners by automating the process of recording patient information and sending timely notification. Inpira / Manorama is a loading healthcare software development company that builds interactive doctors and patient engagement platform. We have healthcare center make optimal use to store information by analyzing it deeply and converting it into actionable insights.

Hospital Management Information System is capable of performing multiple functions at a time eg., It can play the roles of different healthcare solution.

HOSPITAL MANAGEMENT INFORMATION/ SYSTEM (H

Dr. Sarika Chapane

A.M.O. HMIS Nodal Officer

B.Y.L. Nair Hospital (Mumbai)

THE FOLLOWING ARE 34 MODULES IN HIMS:

1	Registration	18	Asset and maintenance
2	OPD	19	Diet and Kitchen
3	MLC	20	Clinical Services
4	Forensic	21	Stores and other Stores
5	Autopsy	22	CSSD Central Supply of sterilization department
6	CAL	23	Linen and Laundry
7	IOC Issue of certificate	24	Laboratory
8	MRD	25	Radiology
9	Endoscopy	26	Billing
10	Cathlab	27	Birth Registration
11	Labour Room	28	Death Registration
12	Blood Bank	29	Human Resources
13	Emergency	30	Financial Accounting
14	Referral	31	PACS Picture Achieve & Communication System
15	OT Operation Theater	32	MSW Medical Social Worker
16	IPD Indoor Patient Department	33	Immunization
17	Ambulance	34	Radiation Oncology

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ROLES AND RESPONSIBILITIES OF HMIS NODAL OFFICE

Dr. Sarika Sunil Chapane AMO and Nodal Officer of HMIS. Along al responsibilities of AMO's doing addition work for HMIS.

1. Attending all HMIS meetings in Head office as well as in Nair Hospital.
2. Co-Ordination between IT Department, Software, Hardware team, Doctor's, Nurses, Technicians for Implementation of HMIS.
3. Signing of UAT for upgradation of the HMIS software
4. Taking rounds in OPD's, Wards in view of implementation of HMIS.
5. Co-Ordination for resolving technical issues in between both team's, doctors, nurses, technicians.
6. To monitoring the HMIS usage and progress
7. Approvals of Change Request and Enhancement.

HMIS Project Benefits

- **Patient Centric:**
  1) Unique smart card useable in PAN MCGM healthcare system (PE, T, C).
  2) Enhancement of patient comfort levels due to availability of online medical records (PE).
  3) Reduction in patient anxiety due to visible queue management at Out-patient department (PE).
  4) Substantial reduction in patient treatment turn-around-T (PE).
  5) Availability of laboratory and Radiology reports in HMIS leads to quicker diagnosis and treatment planning (PE, T).

- **Clinical Staff Centric:**
  1) Enhanced decision making due to real time availability of drug and medical equipment (T, C)
  2) Due to equipment integration saves on T and effort for Laboratory and Radiology reporting (T, PE)
  3) Real T availability of public health data, helps in tailoring of public health out-reach programs (T, PE, C)
  4) Efficient referral system connecting all 399 locations (T, PE, C)

- **Administration and Management Centric:**
  1) Centralized data storage helps with enhanced patient data security (C)
  2) Digital X ray reduces C and processing T (C, PE)
  3) Data driven human resource optimization and management (T, C)
  4) Real T Medicine stock helps in managing inventory (T, C)

(PE – Patient Experience, T – Time and C – Cost)

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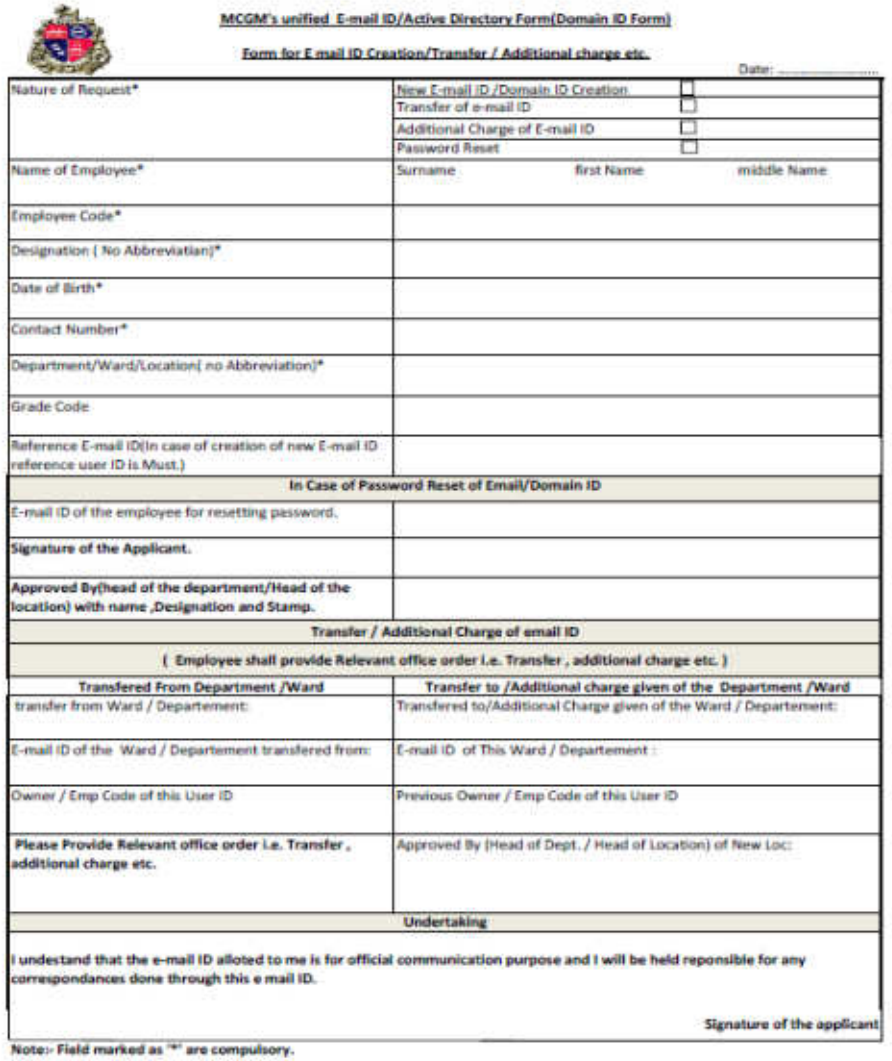
HMIS ID CREATION REGISTRATION PROCESS

For new HMIS user ID creation, User's needs to fill Domain Id creation form which is available at Department HOD or at AMO office after filling form user's needs to take sign and stamp of HOD and submit to AMO office. User will receive user ID and



MCGM's unified E-mail ID/Active Directory Form(Domain ID Form)

Form for E-mail ID Creation/Transfer / Additional charge etc.

Date: .....

Nature of Request*	New E-mail ID /Domain ID Creation ☐ Transfer of e-mail ID ☐ Additional Charge of E-mail ID ☐ Password Reset ☐
Name of Employee*	Surname first Name middle Name
Employee Code*	
Designation (No Abbreviation)*	
Date of Birth*	
Contact Number*	
Department/Ward/Location(no Abbreviation)*	
Grade Code	
Reference E-mail ID(In case of creation of new E-mail ID reference user ID is Must.)	
In Case of Password Reset of Email/Domain ID	
E-mail ID of the employee for resetting password.	
Signature of the Applicant.	
Approved By(head of the department/Head of the location) with name ,Designation and Stamp.	
Transfer / Additional Charge of email ID	
(Employee shall provide Relevant office order i.e. Transfer , additional charge etc.)	
Transfered From Department /Ward	**Transfer to /Additional charge given of the Department /Ward**
transfer from Ward / Departement:	Transfered to/Additional Charge given of the Ward / Departement:
E-mail ID of the Ward / Departement transfered from:	E-mail ID of This Ward / Departement :
Owner / Emp Code of this User ID	Previous Owner / Emp Code of this User ID
Please Provide Relevant office order i.e. Transfer , additional charge etc.	Approved By (Head of Dept. / Head of Location) of New Loc:
Undertaking	
I undestand that the e-mail ID alloted to me is for official communication purpose and I will be held reponsible for any correspondances done through this e mail ID. **Signature of the applicant**	

Note:- Field marked as '*' are compulsory.

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HMIS PROCESS FLOW

1. First patient visit registration counter for registration. RA will enter all details of patient and give the receipts print of 10 Rs. and issue healthcare (UHID).
2. Then the patient will turns to the OPD nursing counter to generate the token.
3. Patient will be visible on Doctors Waiting Screen, Doctor will search the patient by using UHID and name, Doctor will enter all details like chief complaint, history, diagnosis, proforma, investigation, prescription, etc. into HMIS. Then issue the printed EMR summary report to the patients.
4. If doctor advice any laboratory test to the patient. Then patient turn to laboratory and show the EMR summary or health card to technician. Then technician will do the barcode generation, sample collection, sample receive, sample send to another hospital, and investigation reports. Then senior lab Doctor will check and verify that reports and give the approval into HMIS and then dispatch that reports.
5. If doctor advice any Radiology test to patient. Then patient turn to billing counter to pay the investigation charges. The billing user search the patient form UHID and provide the investigation bill print to the patient.
6. Then patient turn to radiology technician and show the health card or Bill to the technician. Then radiology technician will schedule the patient for modality, Patient will reflect on PACS broker (console) and accession will generated then they do reporting from PACS after approval process the reports will display on doctor desk on investigation reports tab and on RIS Dashboard.

QUICK EMR (SUMMARIZED EMR)

Quick EMR is introduced to maximize the utilization of HMIS and Minimize the Navigation time and clicks into HMIS.

Process:-

Step 1:- Login with the credentials
Step 2:- Select patient from waiting screen
Step 3:- Click on Quick EMR.
Step 4:- Fill details of Chief complaints, physical examination, past history and previous examination.
Step 5:- Add provisional diagnosis.
Step 6:- Add on Plan / Advice (Treatment plan), If any.
Step 7:- Add Investigation (add Laboratory & radiology investigation)
Step 8:- Add Prescription (add drugs)
Step 9:- Click on save button to save all the details
Step 10:- Click on EMR Summary button to take printouts

❑ QUICK EMR

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❑ Overview of Doctor Desk Dashboard

1. Input valid **Username** and **Password.**

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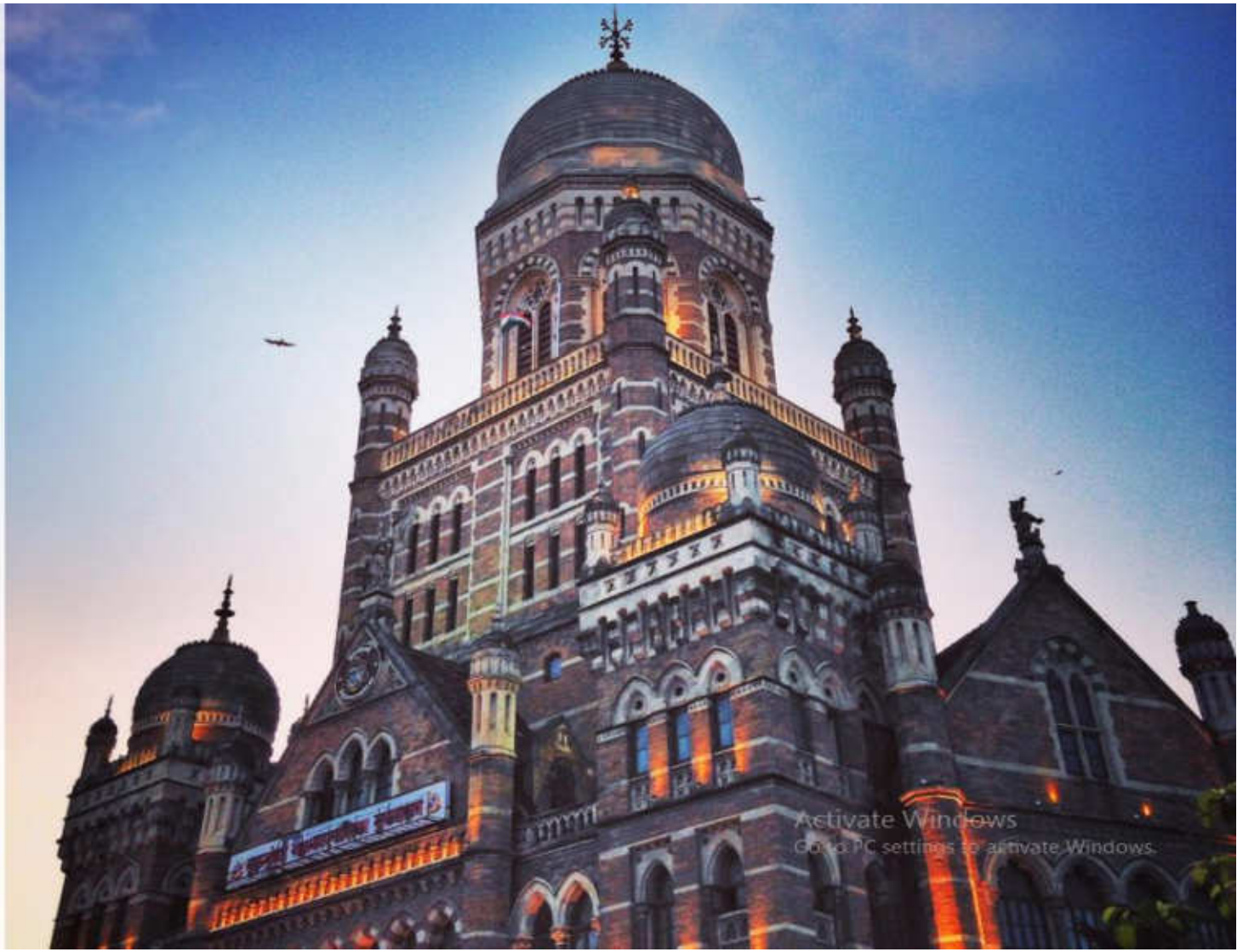
Municipal Corporation of Greater Mumbai

Username — Enter Username

Password — Enter Password

LOG IN

2. Click On **Login** button.



❑ QUICK EMR

AVESH | 23 year(s)/Male | UHID : 1020000000907 | Category : General | Dept : Medicine | Visit Type : OPD

Demographic Details | Quick EMR | EMR | Investigation Reports | Investigation | Prescription | Services | Procedure Appointment

Click on **Quick EMR**

Present Complaints of (Chief Complaints)

c/o fever
c/o cough
since last 2 days

Origin, Duration, Progress (Physical Examination)

No physical examination

Past Medical / Surgical History Details

No past history

Previous Investigations

CBC report seen

Provisional Diagnosis*

Search Diagnosis | Working Diagnosis | Add

Code	Description	Type
R50.9	Fever, Unspecified	Princi

Provisional/Differential Diagnosis Details

Plan / Advice (Treatment Plan)

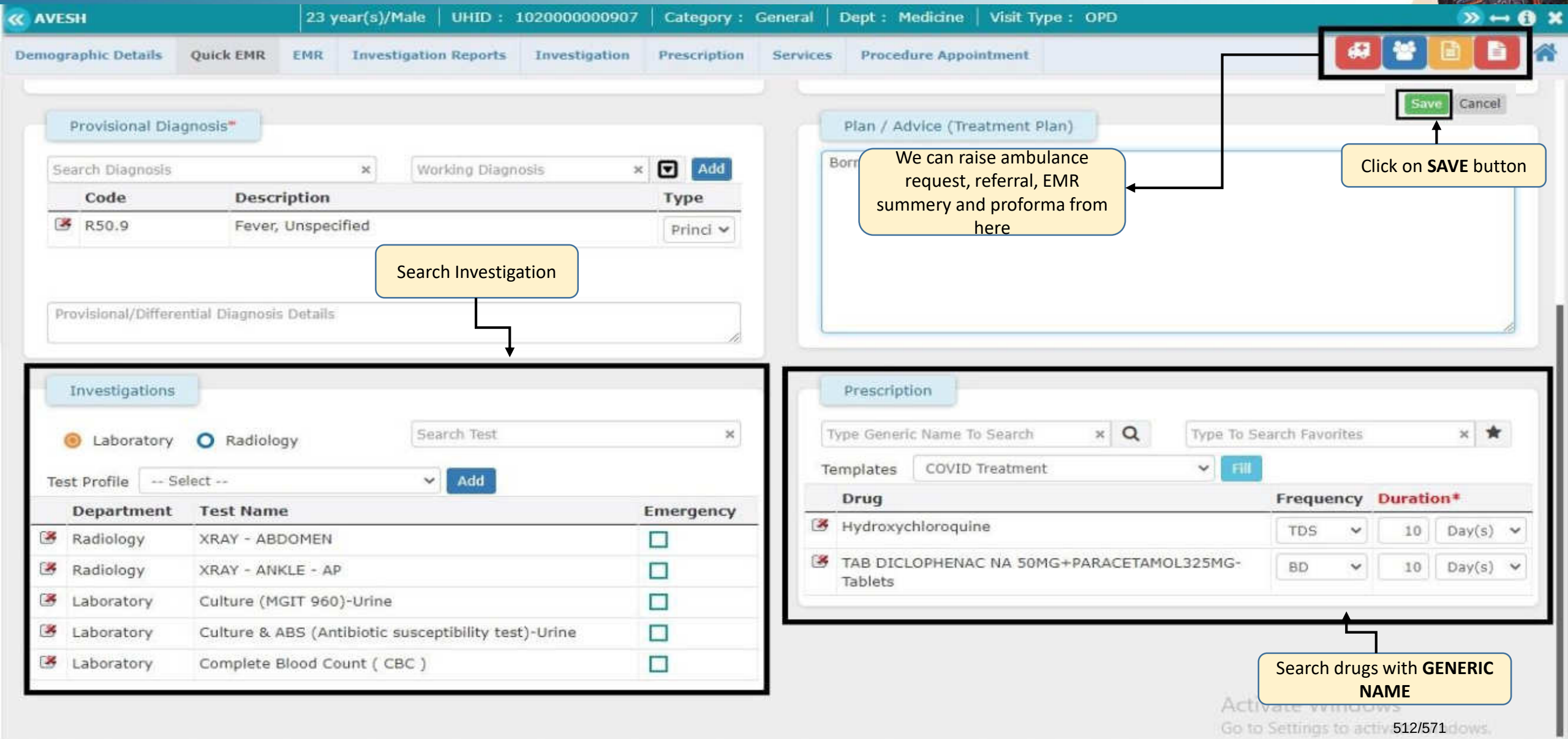
Born Marrow

Fill details like Chief complaints, past history, diagnosis, etc.

Investigations

Prescription

❑ QUICK EMR



In case of any network, Printer, hardware related issue

call on 9152052062 / Extension No: 7359

In case of any Technical queries related to software,

Visit Helpdesk portal https://arogyasanchayani.mcgm.gov.in/HelpDeskWEBAPI or

call on helpdesk no 18002669088 / Extension No: 7360

➢ HMIS Project Objectives

1. MCGM has a need to improve the quality and responsiveness of healthcare services
2. The objective of this project is to implement Hospital Management Information System at MCGM's network which comprises of 3 Major Hospitals, 1 Dental Hospital, 18 Peripheral Hospitals, 5 Specialty Hospitals, 28 Maternity Homes, 161 Dispensaries and 183 Health Posts.
3. The total capacity is approximately
4. 13000 beds which amount to 28% of the total bed capacity in Mumbai. Approximately54000 outpatients are treated every day at MCGM health facilities.

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HMIS Need and Outcome

The present healthcare processes fall short when it comes to quality and responsiveness of services.

MCGM has huge number of patients visiting MCGM health facilities and with the number of cases increasing on a yearly basis, it is difficult to manage services with existing manual processes.

Thus, automation and reengineering of the existing manual processes have become a key activity for MCGM health facilities in order to provide improved healthcare services to citizens in terms of quality and timelines.

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Municipal Corporation of Greater Mumbai

Health Registration Card
आरोग्य सेवा नोंदणी

UHID: 10200003[redacted]

रुग्णाचे नाव/Name: [redacted]

ठिकाण/Locality: Andheri East

वय/Age: 9 Years लिंग/Gender: Male

दूरध्वनी/Contact: 98695[redacted] Issued Date: 22/Oct/2021

बृहन्मुंबई महानगरपालिका
Municipal Corporation of Greater Mumbai

आरोग्य नोंदणी पावती / HEALTH REGISTRATION RECEIPT

पावती क्र. / Receipt No. : 102/REC/2110155831

पावती दिनांक / Receipt Date : 22/10/2021

ओळख क्र. / UHID : 10200003[redacted]

रुग्णाचे नाव / Patient Name : [redacted]

रुग्ण प्रकार / Patient Category : General

रक्कम / Amount : 10.00

अक्षरी रुपये / Amount in Words Rs. : Ten Only

वैधता / Valid upto: 04/11/2021

बाह्यरुग्ण विभाग / OPD Location : OPD Building-Block A - 4th floor - Room No 18, Room No 19, Room No 20

Ability to patient care in HMIS

- Ability to track changes in patient over time.
- Since all data related to patient was in HMIS, it was easier to compare health progress.
- Ability to monitor and measure performance goals and outcomes.
- Information and Referral.
-
- Monitoring of patient was done in system even, referral to covid19 other system or makeshift hospital can be tracked.

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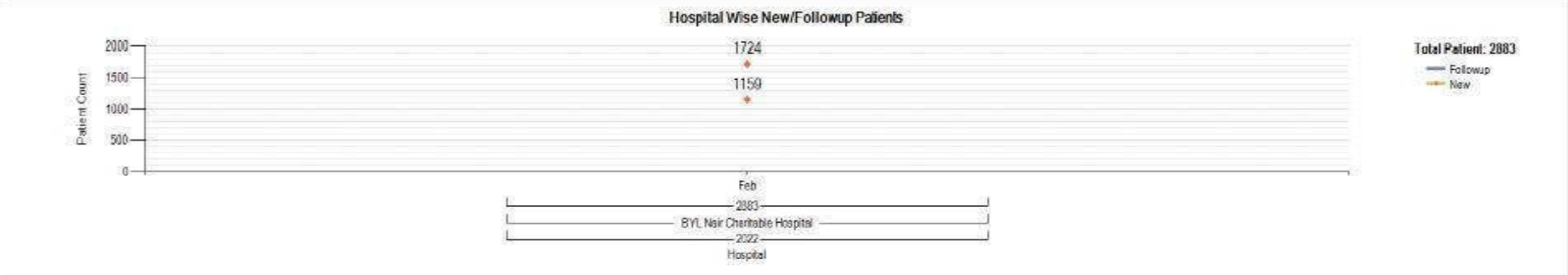
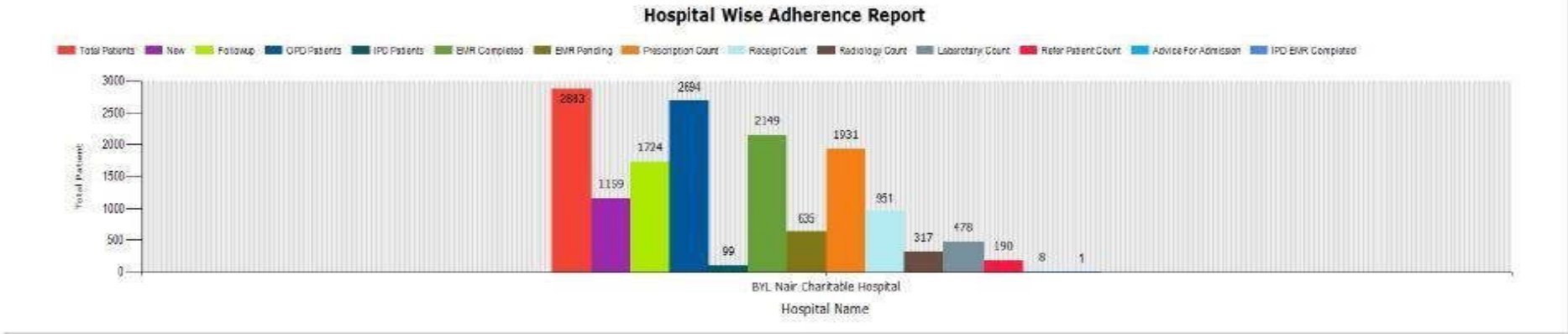
HIMS Adherence Report From 28/02/2022 To 28/02/2022

Hospital Name	Total Department	Total Patients	New Patients	Followup Patients	OPD Patients	IPD Patients	Casualty Patients	Total Token	EMR Completed	IPD EMR Completed	EMR Pending	Prescription Count	Laboratory Count	Radiology Count	Advice For Admissi	Refer Patient Count	Receipt Count
BYL Nair Charitable Hospital	45	2883	1159	1724	2694	99	90	2109	2149	1	635	1931	478	317	8	190	951
Total		**2883**	**1159**	**1724**	**2694**	**99**	**90**	**2109**	**2149**	**1**	**635**	**1931**	**478**	**317**	**8**	**190**	**951**





HMIS Enabled MCGM Hospitals

Sr. No.	Hospital Name
1	B. Y. L. Nair Charitable Hospital
2	Kasturba Hospital for Infectious Diseases
3	Dr. R. N. Cooper Hospital
4	Seth V. C. Gandhi and M. A. Vora Mun. Gen. Hospital
5	Bharatratna Dr. Babasaheb Ambedkar Municipal General Hospital
6	Lal Vitachi Chawl, Mun. Disp., N.M. Joshi Marg Mumbai-11
7	Mun. Disp. Rasul Jeeva compound, Khade Marg, Mumbai-11
8	Nana Chowk Mun. Dispensary
9	Bai Gaurabai Dispensary
10	Souter Street Dispensary

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THANK YOU

GENDER SENSITIVITY

Recognizing privilege and discrimination around gender

Dr. Sanjay Swami
Associate Professor
Department of Biochemistry,
TNMC

What is PSH committee?

The MCGM has set up a complaint committee.

1. ***Headed by women.***
2. ***Have at least half of its members as Women.***
3. ***Third party representative from NGO.***
4. ***Completely confidential.***
5. ***Time bound.***
6. ***Submits annual reports to Government and MUHS.***

Prevention of Sexual and Physical Harassment c ittee

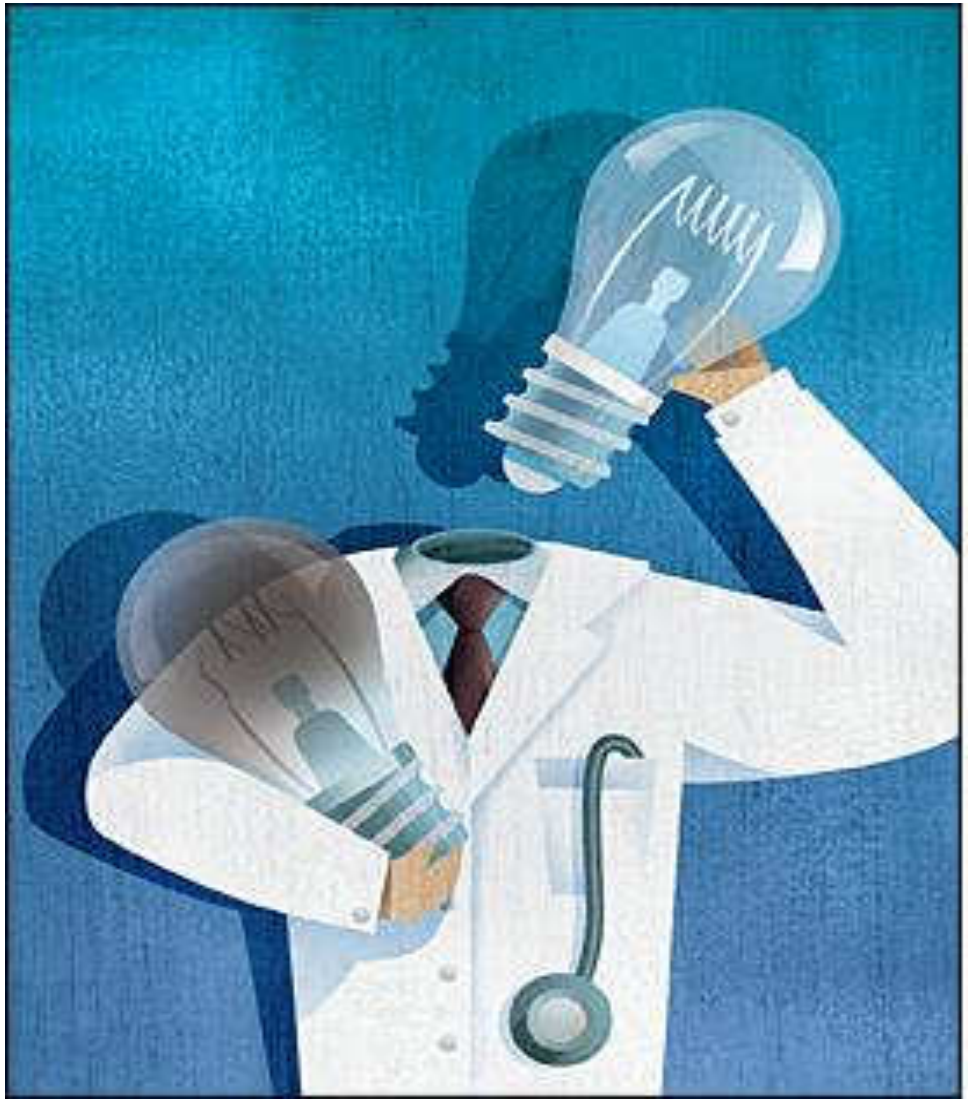
Sr. No.	Name	Designation	Where to find
1	Dr. Jahnavi Kedare Professor, Psychiatry	President	OPD building, Psychiatry Dept
2	Dr. Sanjay Swami Associate Professor, Biochemistry	Secretary	4th Floor, College, Building, Biochemistry
3	Dr. Sonali Pandey Asso Professor, Phsyiology	Joint Secretary	4th Floor, College, Building, Physiology
4	Dr. Gayatri Hattingadi Asso Prof and Head	Joint Secretary	1st Floor, College, Building, AST dept
5	Dr. Pushpa Pazare Prof & HOD, Physiology	Member	4th Floor, College, Building, Physiology
6	Smt. Sneha Pednekar, Matron	Member	Matron office
7	Smt. Suvidha Shirodkar, JtChPO	Member	Joint Chief PO (Gr Floor, College bldg)
8	Smt. Seema Jadhav, Steno	member	Steno to dean (Gr Floor, College bldg)
9	SPGRC Appointed NGO member	NGO	Appointed case to case basis

1. ***Dr. Jahnavi Kedare - Chairperson -9322239997***

   Email- jskedare@gmail.com

2. ***Dr. Sanjay Swami- Secretary -9890865229***

   Email- sanjviews@gmail.com



RESILIENCE BUILDING IN HEALTH-CARE WORKERS

DR. A'S STORY

I finished my covid duty and saw my phone.

10 missed calls from home. I suddenly felt a chill down my spine.

What happened? Is everything alright at home?

I got so many thoughts in my mind at a time!

I called back and found out. My father was admitted to the hospital.

He had become breathless in the evening. His RTPCR was positive since 3 days.

I got extremely worried. I wanted to leave everything and rush home.

I thought of all the risk factors, his age, his HT, DM and being overweight.

I was very tense.

All the negative thoughts started coming to my mind and I felt like crying.

My mother also had so many questions. How would I be able to look after her?

I decided to….

DR. 'A'

PARTICIPANT RESPONSES….

What options are available?

PARTICIPANT RESPONSES....

Remember a difficult and challenging situation you have been through..

HOW DID YOU HANDLE IT?
ASK YOURSELF..

Whom did I talk to? What did I do? What resources did I use? What helped me?

WHICH OF THESE CAN BE USEFUL TO ME IN THE CURRENT SITUATION?

RESILIENCE

RESILIENCE IN DISASTERS

The **capacity** of a **system, community** or **society** potentially exposed to hazards to **adapt**, by **resisting** or **changing** in order to **reach** and **maintain** an **acceptable level of functioning** and structure.

RESILIENCE IN INDIVIDUALS

The **capacity** to be **resourceful** and **creative**, to make **choices**, and to take **effective action**, when faced with challenging situations. It involves **getting through** difficult situations and **growth.**

UNISDR (2005b). *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters*. World Conference on Disaster Reduction. 18-22 January 2005, Kobe, Hyogo, Japan. A/CONF.206/6. UNISDR.
American Psychological Association. (2020, February 1). *Building your resilience.* http://www.apa.org/topics/resilience

RESILIENCE

WHAT RESILIENCE IS NOT

NOT-The lack of emotional distress.
NOT- A personality trait.
NOT- Immediately change the context which produces the stress
NOT- Short term relief & comfort

- ✓ Develops **LONG TERM EFFECTIVENESS, SATISFACTION.**
- ✓ Resilience can be developed by **ANYONE** with **EFFORT** and **INTENT**

American Psychological Association. (2020, February 1). *Building your resilience.* http://www.apa.org/topics/resilience

RESILIENCE BUILDING..

- ✓ Is essential.
- ✓ Is possible.
- ✓ It can be made sustainable.

RESILIENCE BUILDING

IT'S ABOUT BOUNCING BACK!!

RESILIENCE BUILDING

BUILDING RESILIENCE INVOLVES TWO MAIN ASPECTS

How WELL one bounces back

Depends upon:

1. The **COPING STRATEGIES** used
2. The **RESOURCES** available and their use

For how LONG does the bounce-back sustain

Sustaining resilience is based on the **6 FOCAL POINTS**

1. **PURPOSE**
2. **PERSPECTIVE**
3. **PARTNERSHIPS**
4. **PROACTIVITY**
5. **PRACTICE**
6. **PRESENCE**

DR. B's STORY

Dr. B was feeling very tired and fatigued since the past two days.

While doing his covid duty he felt dizzy for some time.

He sat down on a chair for sometime.

Then he pulled himself up & completed the remaining hour of his duty.

When he reached his room in the hostel, he started crying. He was so scared!

DR. B

DR. B's STORY

RESPONSE A

When he reached his room in the hostel, he was so scared!

"What is happening to me? What if I fall sick?

The moment I tell others about my fatigue and weakness they will send me for RTPCR!

What if it comes positive?

My mother would get so worried! I won't be able to go home! What to do?

He could not sleep throughout the night and kept thinking of all the possible consequences!

DR. A's STORY

RESPONSE B

I was thinking to myself..

1. Let me apply for leave. Let me at least try. If I get leave I will go home immediately. Then I will be with my mother and I will be able to look after my father also.

2. Considering my father's comorbidities, let me find out what to expect.

3. Can I ask somebody? I think I should meet my pulmonology HOD.

4. Who can help us today?

DR. A

PARTICIPANT RESPONSES….

What are the differences between RESPONSE TYPE A & B?

DR. B
RESPONSE A

DR. A
RESPONSE B

How WELL one bounces back

COPING STRATEGIES USED*

EMOTION-FOCUSSED COPING (RESPONSE TYPE A)

'What's going to happen?'

Managing thoughts and emotions

Helplessness
Anger, Fear, Wary
Acting out
Submissive, Avoidance

PROBLEM-FOCUSSED COPING (RESPONSE TYPE B)

'Let's make a Plan'

Practical solutions and actions

Positive approach
Self-confident
Strategize
Seek Social Support

How WELL one bounces back

COPING STRATEGIES USED*

EMOTION-FOCUSSED COPING

'What's going to happen?'

Managing thoughts and emotions

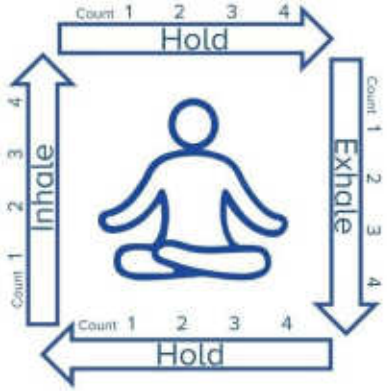
BE COMPASSIONATE
YOU ARE DOING YOUR BEST

PROBLEM-FOCUSSED COPING

'Let's make a Plan'

Practical solutions and actions

ACKNOWLEDGE FEELINGS
DON'T BOTTLE THEM UP

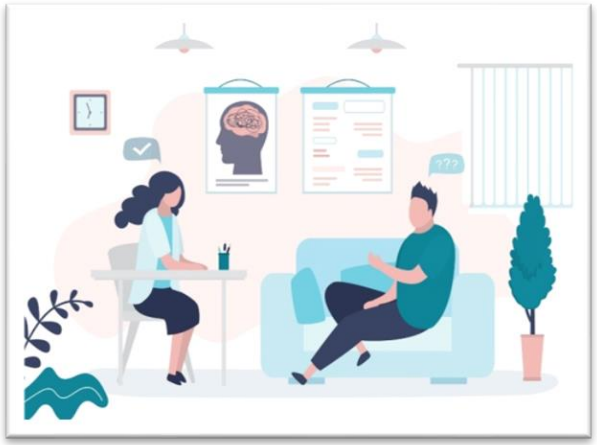


How WELL one bounces back

RESOURCES AVAILABLE AND USED

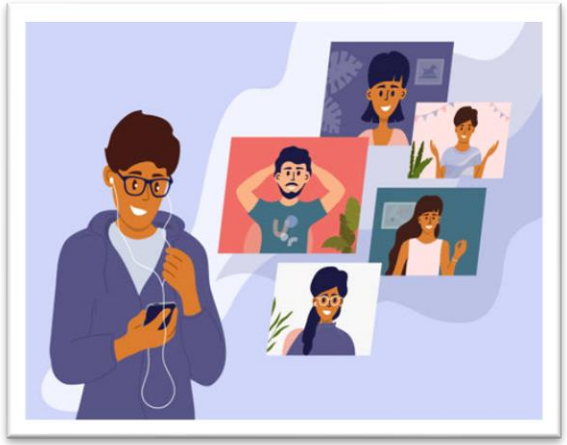
AT WORKPLACE

Peer Group & Seniors
Hospital resources



Mental Health Professionals

OUT OF WORKPLACE



Family & Friends

Books

Helpline

PARTICIPANT RESPONSES….

What resources do we usually use?

RESILIENCE BUILDING

For how LONG does the BOUNCE-BACK sustain

Sustainability is often difficult.

Similar situations result in a similar pattern of frustration coming in repeatedly.

The question is when the key stressor is ongoing and there is no clarity or control on the end/ how and when it will be..

How does one sustain that state of calm and stay in control and optimistic?

How can one stay resilient?

MAINTAINING a clear and unwavering focus on **WHO AND WHAT** the **WORK SERVES.**

PURPOSE

ASK YOURSELF

1) What is my purpose?
2) Why do I do what I do?
3) Who are the beneficiaries I serve through what I do?
4) What do I do daily to remind myself of my true purpose?

CHOOSING, from all possible perspectives , the ones that are **MAXIMALLY FREEING**.

PERSPECTIVE

ASK YOURSELF

1) What is my current perspective in a situation I see as limiting?
2) Alternative perspectives available for same situation?
3) What evidence can I find to support these alternate perspectives?
4) Which is the most energizing & liberating perspective of these all?

CREATING ALLIANCES with those who **share values, goals & purpose**, and can advance the work.

PARTNERSHIP

ASK YOURSELF

1) Who shares my interests in a challenging situation?
2) Which relationships provide support & increase my energy?
3) What helpful support & resources could I use?
4) Of whom can I make this request?

ACTIVE PARTICIPANT *not* an **INACTIVE PASSENGER**
Identify **ACTIONS** likely to give **RESULTS**

PROACTIVITY

ASK YOURSELF

1) What part of my challenging situation do I need to just accept?
2) In which situation do I tell myself that I have no choice when in fact I do?
3) Which simple action can I take now that I haven't let myself take actively?

HEALTHY SELF CARE ROUTINE:
Diet / Exercise
Read / Relax
Meditation
Quality time with loved ones/ Play

PRACTICES

ASK YOURSELF

1) Which current routine of mine is restorative?
2) Which of my past routines have released stress & increased vitality?
3) Which practice can I start engaging in now to support my resilience?

INHERENT CAPACITY to **CHOOSE** where one decides to **FOCUS** one's **ATTENTION**. Deals with **PRESENT MOMENT AWARENESS.**

PRESENCE

ASK YOURSELF

1) What can I do to integrate a simple Body – Mind practice for me which will help improve my sense of presence?
2) What can I do to research the validity of these statements for me?

CHECK FOR YOURSELF

Take a paper and pen.

Write down answers to these questions.

Think about them..

QUESTIONS

*1. What is the **purpose** of my being here? (Purpose)*

*2. Describe in **two words** about your understanding of covid duty. (Perspective)*

*3. Name **three people you can connect** with to give you strength. (Partnerships)*

*4. Name **one activity** you regularly do for your **body, mind and soul.** (Practice)*

*5. Think of **one problem** that you are **facing at present** and think of a **solution**. (Pro-activity)*

*6.Identify **one thing** that would **help you focus attention**. (Presence)*

RESILIENCE BUILDING

SPIRITUALITY

PRAYER

GRATITUDE

PLAY AN IMPORTANT ROLE IN RESILIENCE BUILDING

SPIRITUALITY

PRAYER

GRATITUDE

INSTILL FAITH. CONQUER FEAR. HELP HEAL & TURN TOWARDS SELF WITH COMPASSION

- Experienced as a
  -Deep sense of aliveness
  -Interconnectedness
- Comes in focus when faced with:
  - Emotional stress/ Physical illness
  - Existential crises
- The **BIGGER PICTURE** on Existence
- Brings **PERSPECTIVE, PURPOSE &** a sense of **PRESENCE** .. RESILIENCE

- **PRAYER= FOCUSED THOUGHT**
- Connects to a POWER greater than us when we feel powerless.
- Instills a sense of LOVE and BELONGING
- Builds **FORTITUDE** through a **PARTNERSHIP** with **GOD**…RESILIENCE

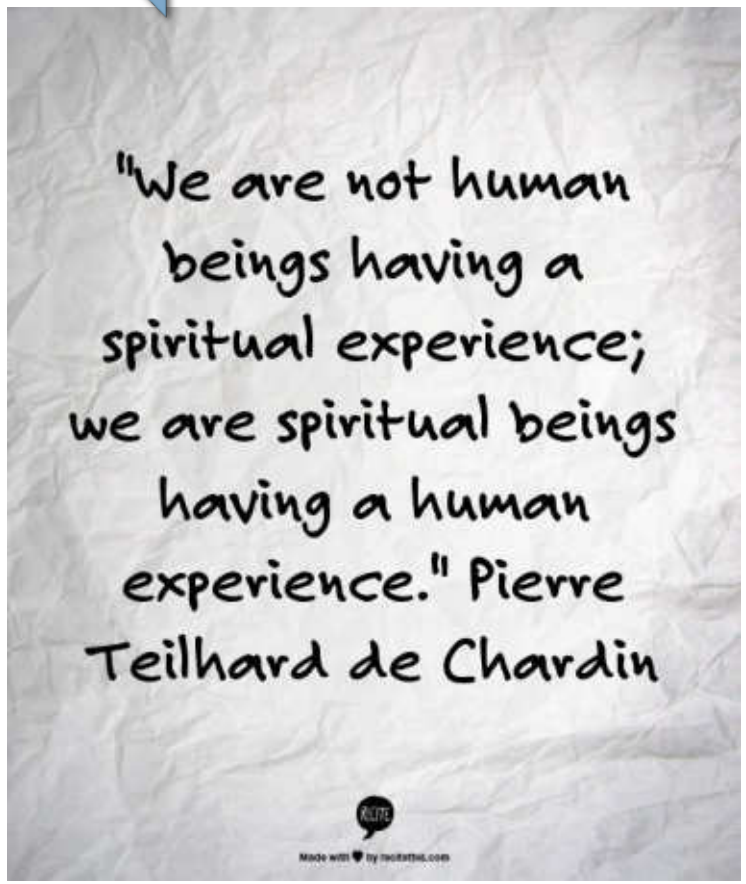
- Is an **ATTITUDE**
- Practice DAILY for 10 minutes
- Say thank you for:
  -A positive life experience
  -Stress relieving thing/person
  -Qualities & talents
  -That which is taken for granted.
- Use of **PROACTIVITY** to build **PERSPECTIVE** & **PRESENCE**

SPIRITUALITY

PRAYER

GRATITUDE

THE RESILIENCE BUILDING TOOLS



DR. A'S STORY

I went to see my parents.

I wore a PPE and went to the ICU where he was lying in bed, totally tired, with O2 mask and bag, a multipara beeping next to him and still trying to smile at me!

I was shocked to see him like that! I was devastated! I imagined all sorts of scenes in my mind!

I smiled back at him and told him' Baba, don't worry, you will be fine. We will go ho

On what basis did I say that? Was it being realistic? I was wondering..

What should be done to feel optimistic in such a situation?

REALISTIC OPTIMISM

Realistic optimism (Schneider, 2001) involves

-**HOPE** for a **POSITIVE OUTCOME**

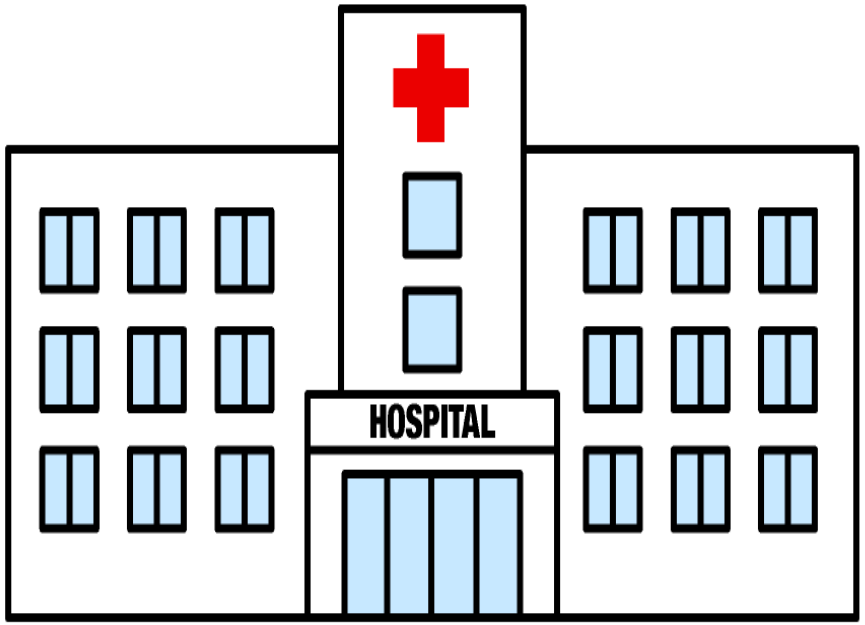
-Set **ACHIEVABLE GOALS**

-**WORK** towards desired outcomes **WITHOUT THE EXPECTATION** that it will occur.

-**INCREASE LIKELIHOOD** of desirable and personally **MEANINGFUL OUTCOMES** by taking **ACTION**

-**RECOGNIZE** situational, personal and environmental **CONSTRAINTS.**

RESILIENCE IN WORKPLACE



- ✓ **Communicate** with coworkers, supervisors & employees **about job stress** & how the pandemic is affecting your work.
- ✓ **Identify stressors** and **work together** to identify **solutions**
- ✓ **Ask** about how to access **mental health resources** in your workplace.

RESILIENCE IN WORKPLACE

- ✓ Remember everyone is in an **unusual situation** with **limited resources.**
- ✓ Remind yourself **you are doing your best** with resources available.
- ✓ Identify and **accept** those things which you do **not have control** over.
- ✓ Recognize you play a **crucial role** in this pandemic
- ✓ Try & keep your **daily routine** as similar to the pre-pandemic routine
- ✓ Have a **recharge routine**

RESILIENCE IN WORKPLACE

CREATE:- **A blame-free environment** for communication amongst peers

A **platform for reporting incidents**, ethical or emergency issues & challenges faced by HCW

DISCUSS: Realistic scenarios within **a healthcare team** that provides direct (daily) patient care.

Management advice and **experience sharing**

INVOLVE: **Nursing staff** in the decision-making processes.

RESILIENCE IN WORKPLACE

PSYCHOSOCIAL SUPPORT

Multidisciplinary psychosocial support team:

Peer support

Psychologists

Spiritual counsellors

Social professionals

Occupational health

Safety physicians.

WORK RELATED PROVISIONS

A good care provider–patient ratio to decrease workload

Limited shift hours to 12 hours maximum

Days off duty- taking a break

Training in correct use of PPE

Availability of PPE, instruments, equipments etc

Accessibility of nutritious food and drinks.

CONCLUSION

- ✓Resilience can be developed by ANYONE with EFFORT and INTENT
- ✓RESILIENCE= BOUNCING BACK
- ✓RESILENCE BUILDING involves use of adaptive COPING STARTEGIES & ADEQUATE RESOURCES
- ✓SUSTAINING a state of RESILIENCE requires the presence of 6 Ps i.e 6 FOCAL POINTS of resilience:

  PURPOSE PERSPECTIVE PARTNERSHIPS PROACTIVITY PRACTICE PRESENCE

- ✓Taking to SPIRITUALITY, PRAYER & GRATITUDE has the potential to heal & build resilience
- ✓REALISTIC OPTIMISM is engaging in meaningful action with hope while being mindful of the constraints
- ✓WORKPLACES need to make PROVISIONS for the resilience building needs of their healthcare workers.

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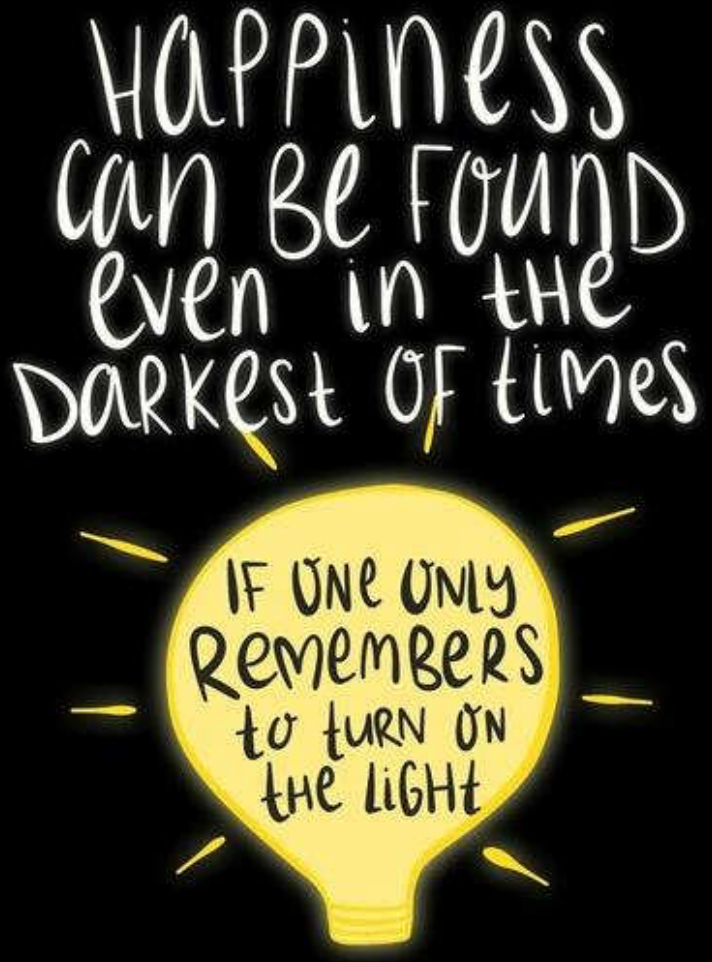

Happiness
can be found
even in the
darkest of times
IF ONE ONLY
Remembers
to turn ON
the LiGHt

ThaNk YoU!

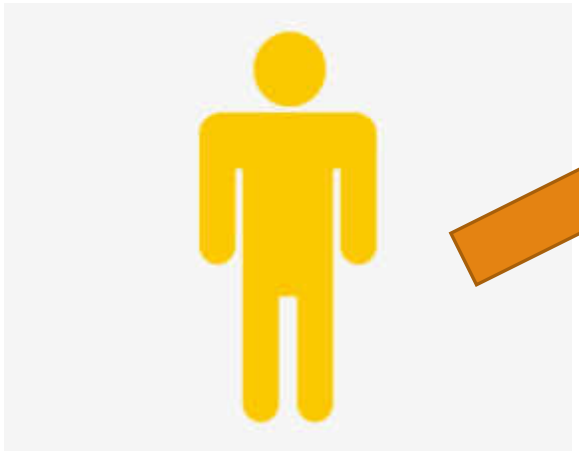
Extra Slides

Each of us have 4 Identities
Non alignment between the 4 identities causes DISSONANCE & SUFFERING
This breaks the RESILIENCE

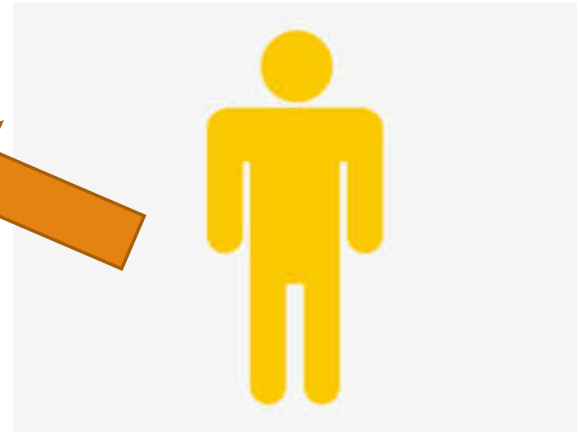
INNER IMAGE
Who do I see myself as?
Helpless/ powerless/ victim

OUTER IMAGE
What do I project myself to be to others?
In control/ confident/ having all the answers

SENSE OF SELF



OUTER IMAGE
What do others expect me to be?
In control/ authority/ having all the answers/ powerful



LIFE IMAGE
What does life appear as?
Burden/ unfair/ tough

STUDY

The aim of the pre-post study was to determine the short-term effects of group-based resilience training on clinical and non-clinical medical staff's (n = 40) mental health outcomes

The study showed statistically significant improvements in resilience ($r = 0.51$, $p = 0.02$) and wellbeing ($d = 0.29$, $p = 0.001$) from before to 1 month after the training. Participants with the lowest wellbeing and resilience scores at start of the training showed higher effect sizes compared to those with highest wellbeing and resilience scores, ($r = 0.67$ compared to $r = -0.36$ for wellbeing scores and $d = 0.92$ compared to $d = 0.24$ for resilience scores); differences that point to particular impact of the training for people with the lowest baseline values.

No significant changes in psychological distress as a result of depression, anxiety and stress were found.

Highlights two things:

1. Group intervention in resilience building helps those with low resilience
2. Need to identify those prone to psychological disorders and make appropriate referrral

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Extra slides- for MHP

Improving the wellbeing and resilience of health services staff via psychological skills training

Meaning making	**Learn to cognitively appraise challenges and failures in a healthy and productive way through a focus on meaning**
Event-thought-reaction connections	Increase awareness of how thoughts drive reactions to events, and determine if thoughts and reactions are helping individuals work towards their goals, act upon their values, improve their performance and strengthen their relationships
What's most important	Increase individual awareness of what influences unproductive reactions (emotional and/or physical) that may interfere with their performance, goals or relationships
Balance your thinking	Help individuals cognitively appraise situations in an accurate manner that is based upon evidence
Cultivating gratitude	Build optimism, positive emotions and resilience by bringing ongoing attention to gratitude as a cognitive process
Mindfulness	Teach individuals to regulate their attention in a focused, open and non-judgemental manner
Interpersonal problem solving	Teach individuals the elements to address interpersonal problems in a respectful manner with healthy and productive emotional expression, and use of compromise
Active constructive responding	Increase awareness of communication patterns and responses that maintain, strengthen, and cultivate positive and important relationships
Capitalising on strengths	Increase individual awareness of theirs and others personal strengths, and how to apply strengths across all life domains
Values based goals	Increases individual awareness of their values, and how to translate these values into actions and goals

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Extra slides- for MHP

Scales to help assess RESILIENCE: BRIEF RESILIENCE SCALE

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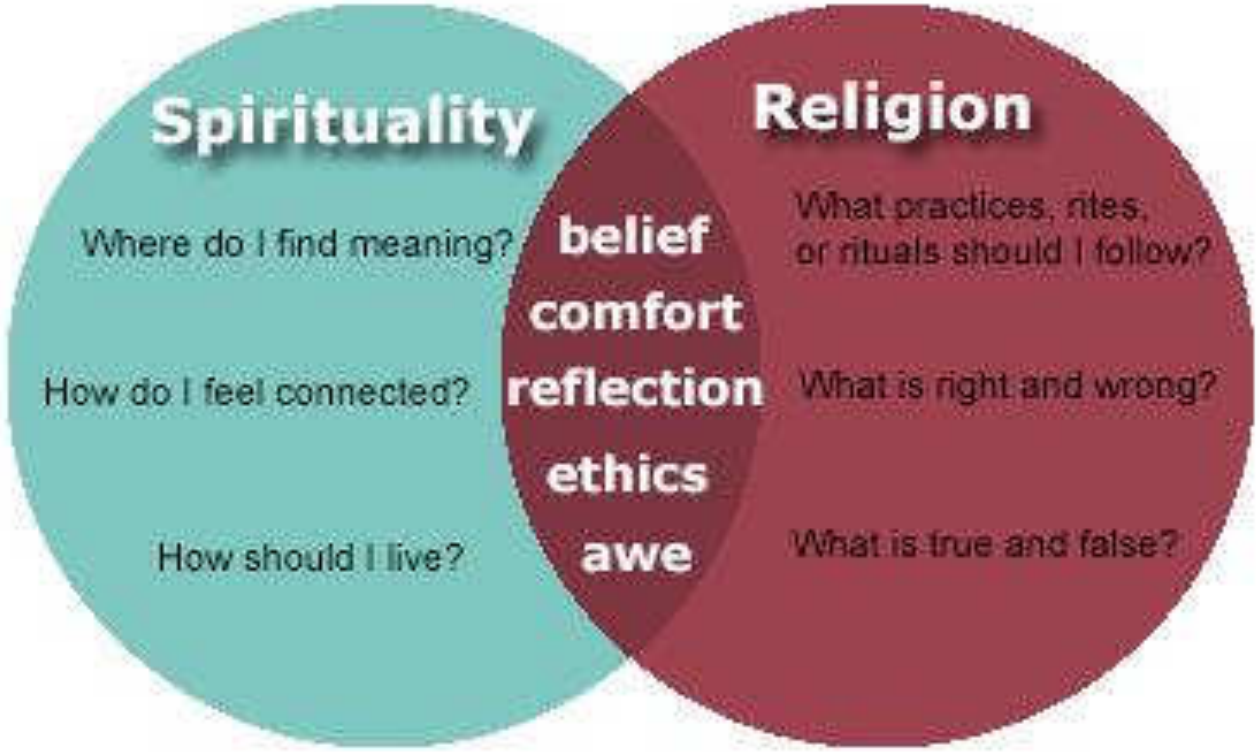

Spirituality
Where do I find meaning?
How do I feel connected?
How should I live?
belief
comfort
reflection
ethics
awe
Religion
What practices, rites, or rituals should I follow?
What is right and wrong?
What is true and false?

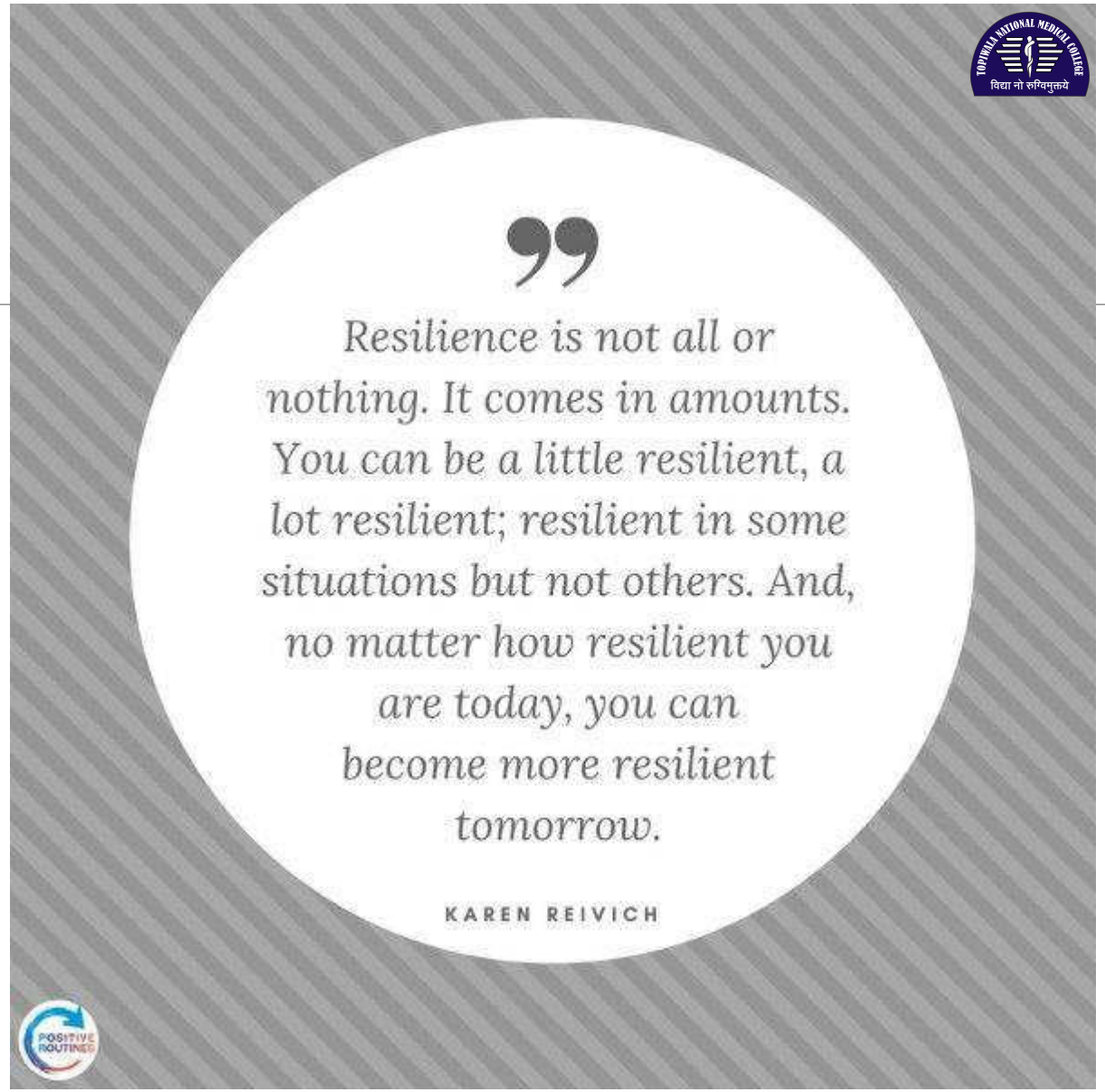
Everything can be taken
from a man but one thing:
the last of human
freedoms – to choose
one's attitude in any given
set of circumstances, to
choose one's own way.

VIKTOR FRANKL

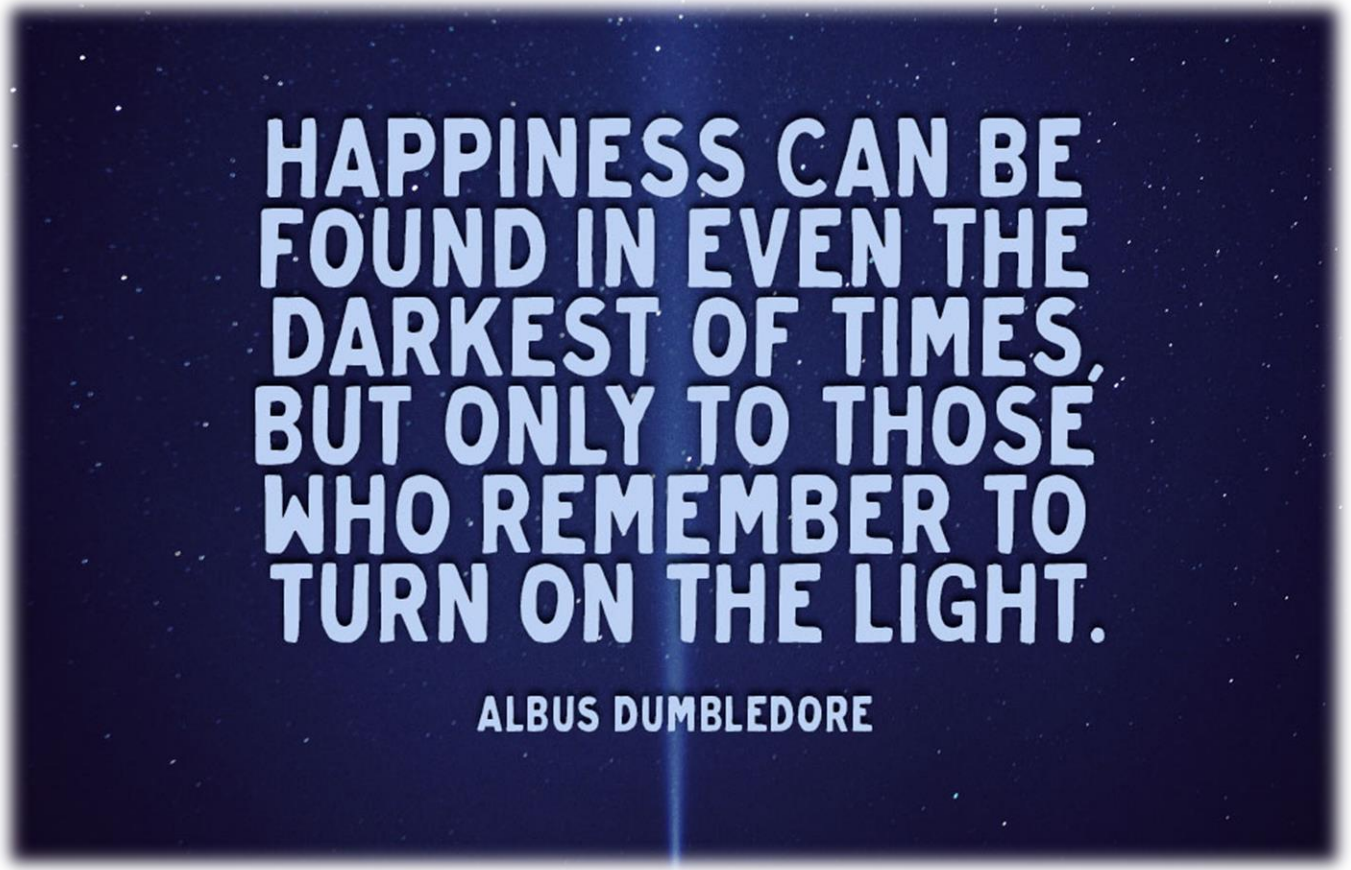
THANK YOU!

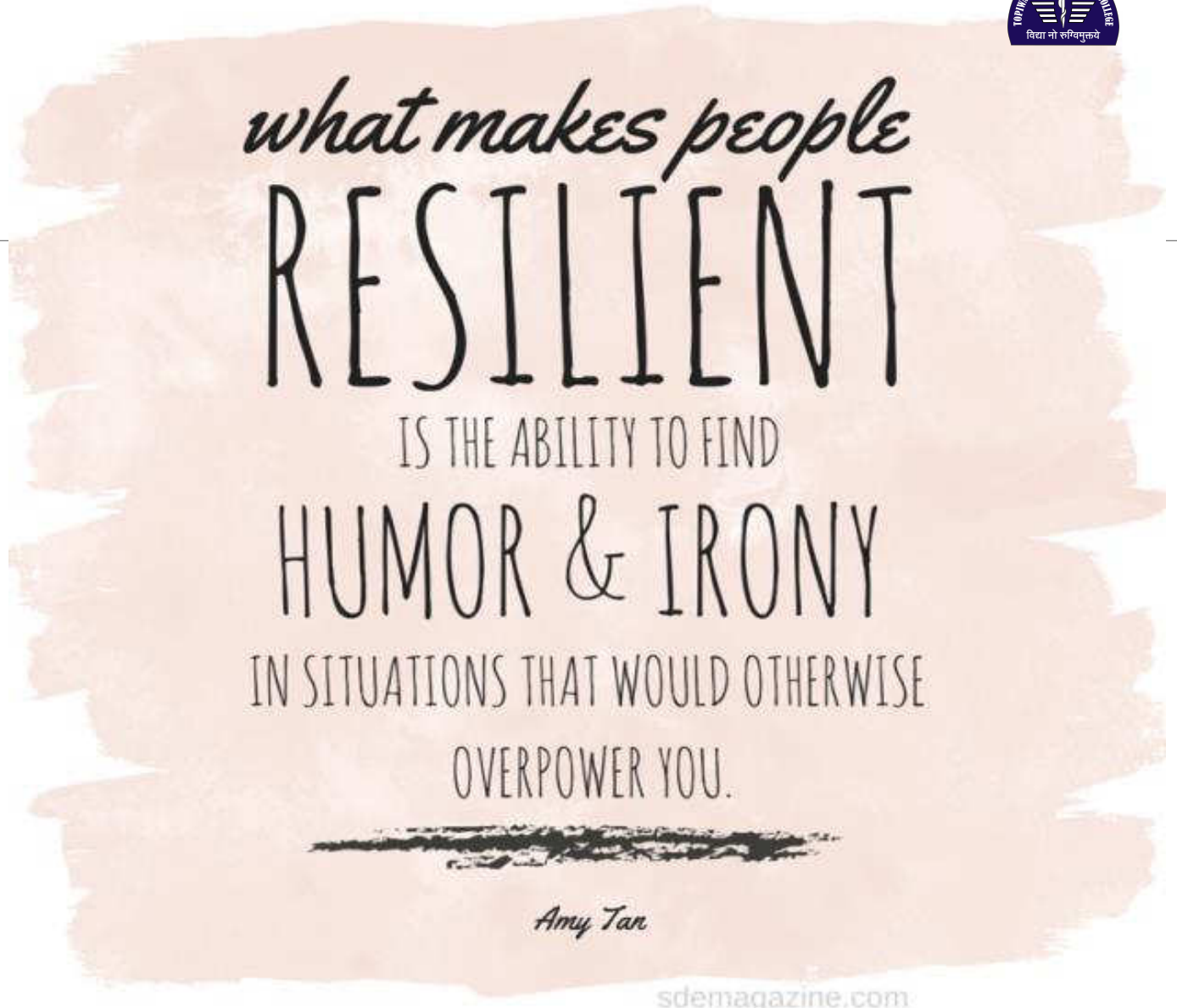
The secret to True Happiness is being open to feeling a range of emotions while catching, appreciating and savoring the happy ones.

Patricia Morgan


Resilience is not all or nothing. It comes in amounts. You can be a little resilient, a lot resilient; resilient in some situations but not others. And, no matter how resilient you are today, you can become more resilient tomorrow.
KAREN REIVICH

INTRODUCTION




what makes people
RESILIENT
IS THE ABILITY TO FIND
HUMOR & IRONY
IN SITUATIONS THAT WOULD OTHERWISE
OVERPOWER YOU.
Amy Tan
sdemagazine.com

Take responses

What options are available?

MRO

नमस्कार.....

पी. जी. च्या शैक्षणिक वर्षामध्ये प्रवेश घेतलेल्या सर्व विद्यार्थ्यांचे प्रथम अभिनंदन.....

वैद्यकिय अभिलेख विभागाच्या कामकाजाची माहिती देण्यासाठी मी आज येथे उपस्थित आहे आणि या माहितीचा आपणांस पुढील यशस्वी वाटचालीसाठी नक्कीच उपयोग होईल.

वैद्यकिय अभिलेख विभाग हे दोन उपविभागात मोडते.

१) नोंदणी कक्ष

२) वैद्यकिय विभाग कार्यालय

नोंदणी कक्ष - Outdoor Indoor

नोंदणी कक्षामध्ये बाह्यरुग्ण आणि आंतररुग्ण पेपर्सची नोंद केल्या जाते. २०१९ पासून HMIS व्दारे रुग्णांची नोंदणी सुरु झाली आहे. यापूर्वी हस्तलिखित नोदणी होत असे. HMIS च्या माध्यमातून पेपरलेस पध्दती सुरु करण्यात आली आहे. यामध्ये रुग्णाचे नाव, वय, लिंग व बाह्यरुग्णाचे नाव व क्रमांक यांची माहिती संगणकीकृत होऊन UHID कार्ड रुग्णास देण्यात येते. UHID कार्ड आधार कार्ड नंबर व मोबाईल नंबरशी लिंक केले जाते. सदर कार्ड घेऊन रुग्ण संबंधित बाह्यरुग्ण विभागात जातो आणि तेथे उपस्थित असलेल्या परिचारिका UHID कार्डच्या आधारे रुग्णाची संगणकाव्दारे नोंद घेतात आणि ही घेतलेली नोंद उपचार करणाऱ्या डॉक्टरांच्या संगणकामध्ये दिसून येते.

उपचार करणाऱ्या डॉक्टरांनी प्रथम रुग्णाचे नाव, वय व लिंग याची माहितीची नोंद झाली की नाही याची खात्री करणे, तदंनतर डॉक्टराने स्वत:च्या नावासह युनिट हेडचे नाव लिहिणे आवश्यक आहे. त्यानंतर रुग्णाच्या हिस्ट्रीची व्यवस्थित नोंद करणे व त्यानंतर सविस्तर उपचाराची माहिती नमूद करणे. तसेच रक्त चाचण्या, क्ष-किरण चाचणी आणि इतर आवश्यक असलेल्या तपासण्यांची नोंद करणे, तसेच उपचारार्थ सुचविलेल्या औषधांची माहिती नमूद करणे. औषधे सुचविण्यापूर्वी प्रत्येक डॉक्टरांनी रुग्णालयात उपलब्ध असलेल्या औषधांची अद्ययावत माहिती असणे आवश्यक आहे. तसेच रुग्णास दाखल करावयाचे असल्यास रुग्ण कक्ष क्रमांक नमूद करणे आवश्यक आहे. रुग्णास दाखल करतांना केसपेपरवर वॉर्ड क्र. व युनिट लिहून सहाय्यक वैद्यकिय अधिकारी यांच्या मान्यतेने रुग्णास दाखल करण्यात येते.

अपघात विभाग -

प्रत्येक रुग्णालयाप्रमाणे आपल्याही रुग्णालयात कोणत्याही प्रकारचा अपघाती रुग्ण हा अपघात विभागात प्राथमिक उपचारासाठी येतो. तेथील कार्यरत असलेले सी.एम.ओ. प्राथमिक तपासणी करुन रुग्णास संबंधीत ओपीडीला किंवा गरज असल्यास रुग्णास तात्काळ रुग्णालयात उपचाराकरीता दाखल करतात.

प्राथमिक उपचार करतांना सीएमओ यांनी कॅज्युल्टी रजिस्टर मध्ये रुग्णाचे नाव, वय, लिंग आणि अपघात स्थळाचा पत्ता, वेळ आणि जखमांचे स्वरुप लिहिणे आवश्यक आहे. तसेच ऑन ड्युटी कार्यरत असलेल्या पोलिसाचे नाव व बक्कल नंबर याची नोंद करणे आवश्यक आहे. तदनंतर अपघाती असलेल्या रुग्णाचा ओपीडी पेपर्स व इर्मजन्सी स्लिप देऊन नोंदणी कक्ष ४ येथे पेपर्सची नोंदणी करण्यासाठी रुग्णाच्या

नातेवाईकांना अथवा विभागातील वॉर्ड बॉयला पाठविले जाते. त्यानंतर ईएसआर, ईएमएस किंवा संबंधित डॉक्टर्स रुग्णास दाखल करुन घेण्याची आवश्यकता असल्यास उचित कार्यवाही करुन रुग्णास रुग्णालयात दाखल केले जाते.

नोंदणी कक्ष ४ मध्ये आंतररुग्ण पेपर्सची नोंदणी झाल्यानंतर संबंधित रुग्णाची कक्षामधील परिचारिकांनी वॉर्ड रजिस्टरमध्ये नोंद घेतली पाहिजे. आंतररुग्ण दाखल करण्यापूर्वी डॉक्टरांनी संबंधित वार्डमधील बेडची स्थिती जाणून घेणे गरजेचे आहे.

आंतररुग्ण पेपर्स -

रुग्णाला डिस्चार्ज देतांना आंतररुग्ण पेपर संपूर्ण समरीसहीत पूर्ण झालेला असावा. जर सदर रुग्णाची पोलिस केस असल्यास आंतररुग्ण पेपरवर कार्यरत असलेल्या पोलिस अधिकाऱ्यांची स्वाक्षरी घेऊनच डिस्चार्ज देण्यात येतो.

सदर रुग्णांच्या संपूर्ण समरीपासून ते डिस्चार्ज दिलेला पेपर संबंधित ओपीडी/ वार्ड/ डिपार्टमेंटच्या डॉक्टरांना गरज पडल्यास कोर्टात वाचता यावा, तसेच जर संबंधित डॉक्टर इतर रुग्णालय किंवा बाहेरगावी असल्यास उपलब्ध असलेल्या युनिटच्या डॉक्टरांना कोर्टात वाचन करता यावा, अशी स्पष्ट नोंद घ्यावी. सदर आंतररुग्ण पेपर संबंधित डॉक्टर अभ्यासासाठी घेऊन जाऊ शकतात. तसेच ओपीडीशी संबंधीत रुग्णांना कोर्ट कामाकरीता इंज्युरी प्रमाणपत्र तसेच विम्याचे फॉर्म वैद्यकिय अभिलेख विभागामार्फत भरुन दिले जातात.