

**Summer Training at
Max Super Specialty Hospital,
Saket, New Delhi**

**Study on Compliance of Antibiotic Prophylaxis: Time of Administration of
Antibiotic Before Surgical Procedure**

**By
Ayushi Thakurdas Sharma**

**Under the guidance of
Mr. Rahul Sharma**

**MBA Hospital and Health Management
2015-2017**



**The IIHMR University, Jaipur
2016**

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Dr. Ayushi Thakurdas Sharma**, student of MBA Hospital and Health Management from the IIHMR University, Jaipur has undergone summer training at Max Super Speciality hospital, Saket , New Delhi from 1st April to 31st May, 2016.

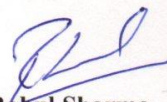
The Candidate has successfully carried out the study designated to her during summer training and her approach to the study has been sincere, scientific & analytical.

The Internship is in fulfilment of the course requirements.

I wish her all success in all her future endeavours.



Col. (Dr.) Ashok Kaushik
Dean (Academics & Student Affairs)
The IIHMR University, Jaipur



Mr. Rahul Sharma
Assistant Professor
The IIHMR University, Jaipur

CERTIFICATE OF COMPLETION

This is to certify that

Dr. Ayushi Thakurdas Sharma

has been associated as an

INTERN

with the department of

MEDICAL ADMINISTRATION

for a period of

1st April 2016 to 31st May 2016

at

Max Super Specialty Hospital,
Saket

"The Internship/Observership course is a Max certified course not
affiliated to any National/International society".



Head of the Department



Dr. Shubnum Singh

Dean - Nursing, Allied Health, & Wellness Programs
Max Healthcare, New Delhi



Ms. Brigitte Wuethrich
General Manager
Max Institute of Medical Excellence
Max Healthcare

DECLARATION

I do hereby declare that I am a student of 1st year, MBA in Hospital and Healthcare Management, IIHMR University, Jaipur, Rajasthan (batch 2015-2017).

I would like to state that I have carried out my Internship on the topic “A study on Compliance of Antibiotic prophylaxis: Time of Administration before Surgery ” under the guidance of Dr.Surbhit Sharma(Deputy Manager-Medical Quality) and Dr Sandeepmor (Deputy Medical Superintendent) at Max Super Speciality Hospital, Saket, New Delhi for the partial fulfilment of our degree of MBA in Hospital and Healthcare Administration.

This project work is my own and has not been submitted to any of the other Institute or University for the purpose of award of any degree or diploma.

Dr.AyushiThakurdas Sharma

IIHMR University

(2015-2017)

ACKNOWLEDGMENT

Summer training is a golden opportunity for learning and self development. I consider myself fortunate for having been provided an opportunity to undergo summer training in Max Super Speciality Hospital, Saket, New Delhi.

I have had the privilege to get to know many people that generously shared their experiences and knowledge with me. I would like to take this opportunity to express my gratitude to all of them.

I wish to express my deep gratitude and regard to Dr. Nalini Kaul (Medical superintendent) who helped us in getting guidance through out internship and Dr. Sahar Qureshi(Assistant General Manager),who showed constant interest in our projects. Also, Dr. Sandeep Mor (Deputy Medical Superintendent) who took out time from his busy schedule to consistently guide us and special thanks to Dr. Surbhit Sharma (Deputy manager – Medical Quality) who in spite of being busy with their duties guided me through his helpful advice, valuable inputs and comments, which helped me learn lot many things in Hospital through observation and helped me through my project.

I am also grateful to hospital staff who helped me through Hospital orientation and also helped in collecting data for my project work throughout my internship.

Last but not the least I am also grateful to my mentor Prof. Rahul Sharma in IIHMR University and also all teachers and staff of college whose joint efforts made it possible.

Dr. Ayushi Thakurdas Sharma

Table of Contents

Abbreviations.....	7
Obsevation Learning.....	8
Mode of data collection.....	9
General Findings.....	10
a)Front Office.....	10
b)OPD Services.....	12
c) Emergency Department.....	14
d) Operation Theatre.....	16
e)ICU.....	17
f) Cathlab.....	20
g)Department of Laboratory services.....	22
h)Radio Diagnosis.....	24
i) Blood Bank.....	27
j)CSSD.....	28
k) Food and Beverages.....	30
l) Dietitics.....	31
m)Biomedical Engineering.....	32
n)Pharmacy.....	33
o) Call Centre.....	34
p) Security.....	35
q) Human Resource Management.....	37
r) International Patient Services.....	38
A Study on Compliance of Antibiotic Prophylaxis: Time of administration of antibiotic before surgical procedure.....	39
References.....	48
Annexure.....	49

S.No.	Abbreviation	Meaning
1.	ABG	Arterial Blood Gas
2.	CABG	
3.	CAPEX	Capital Expenditure
4.	CDC	Centres for Disease Control and Prevention
5.	COW	Computer on Wheels
6.	CPRS	Computerised Patient Record System
7.	CSSD	Central Sterile Services Department
8.	CTVS	Cardiac Thoracic Vascular Surgery
9.	GDA	Ground Duty Assistant
10.	HIS	Hospital Information System
11.	ICPs	Infection Control Practitioners
12.	IPS	International Patient Services
13.	LAMA	Leave Against Medical Advice
14.	LASA	Look alike Sound alike
15.	MSSH	Max Super Specialty Hospital
16.	NABH	National Accreditation Board for Hospitals & Healthcare Providers
17.	OPEX	Operational expenditure
18.	PAC	Pre-Operative Assessment Clinic
19.	PPE	Personal Protective Equipment
20.	RRT	Rapid Response Team
21.	SSI	Surgical Site Infection
22.	TAT	Turn Around Time

OBSERVATIONAL LEARNING

INTRODUCTION

Max Healthcare follows a core of 'Patient Centred Care'. Widely acknowledged nationally and internationally for its quality patient care, Max has successfully implemented the "Medical Excellence Model" through its clinical team of expert physicians and nurses who work together in an integrated manner, assessing patient needs, ordering tests, planning treatments, scheduling surgeries, monitoring progress and planning for early discharge to home.



The pillars of this model include:

- Clinical governance
- Credentialing and clinical privileging of physicians & nurses
- Use of standardized, evidence based protocols
- Patient and staff safety
- Infection control
- A culture of audit and continuous professional development

Every department of the hospital was observed carefully for its working, staff, hierarchy, physical set up and major challenges faced by them and suggestions were made to overcome those challenges.

The hospital has four key areas of specialties:

- Institute of Cardiac Vascular Surgery.
- Institute of Bariatric & Metabolic Surgery.
- Institute of Oncology.
- Institute of Nephrology.

MODE OF DATA COLLECTION

Data collection involved discussions with the HODs on the managerial issues and talking to the other staff and going through the records.

Sources of Data

➤ Primary

- By interacting with the HODs, executives, Doctors and other employees of the hospital.
- By interacting with the patients and their attendants.
- Through direct observations.

➤ Secondary

- Through registered records
- Through website of the hospital
- Literature available about the hospital like magazines, pamphlets, brochures, CDs, written documents
- Hospital Information System(HIS)
- CPRS (Computerised Patient Record System)

GENERAL FINDINGS

FRONT OFFICE

- **First contact point** between the patients / their attendants coming to the facility.
- Gives directions to them about the locations of various departments.
- Helps in planning timely discharge a day before by inquiring about the same from the concerned consultants.
- Performs in patient and out- patient registration.
- Does appointment scheduling of the patients.
- Makes doctors' available summary.
- Insurance management.
- Does registration and scheduling of preventive health check-ups.

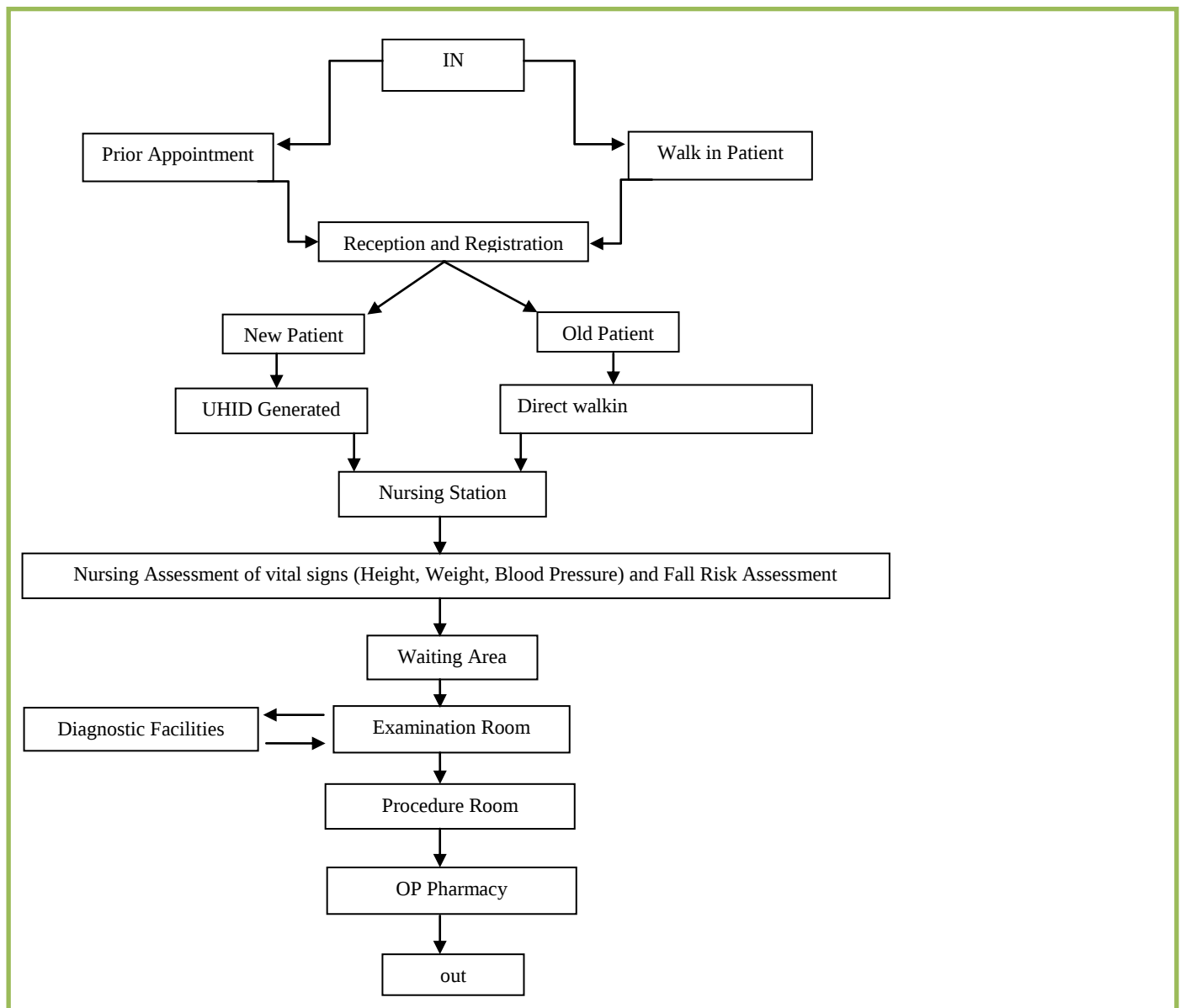
Challenges

- Shortage of staff
- Huge rush during peak hours such as morning.

OUT-PATIENT DEPARTMENT

- Each INSTITUTE of Max Saket hospital has its own OPD area as well as IPD area / day-care area wherever applicable with doctor's chambers and procedure rooms.
- Every OPD has a procedure room and its own Front Desk.
- Appointments are centralized and are recorded on the Hospital Information Management System. As soon as appointments are fixed, a text message is sent to the patient confirming the appointment, and a reminder message is sent on the day before the appointment. No walk-in patient is turned away, and the staffs try to accommodate these patients between the appointments already scheduled for the day.
- Each OPD waiting area has the capacity to handle 70-100 patients waiting.
- In case of a new patient, registration is done which is valid pan-Max and for life time of the patient and a UHID is created which becomes a unique identification for all his health related information.
- For Chairpersons and senior doctors, a junior doctor does the initial assessment of the patient, which not only reduces the workload of the senior doctors (whose slots are always overbooked), but it also gives the junior doctors an opportunity to learn from the best brains in the industry.

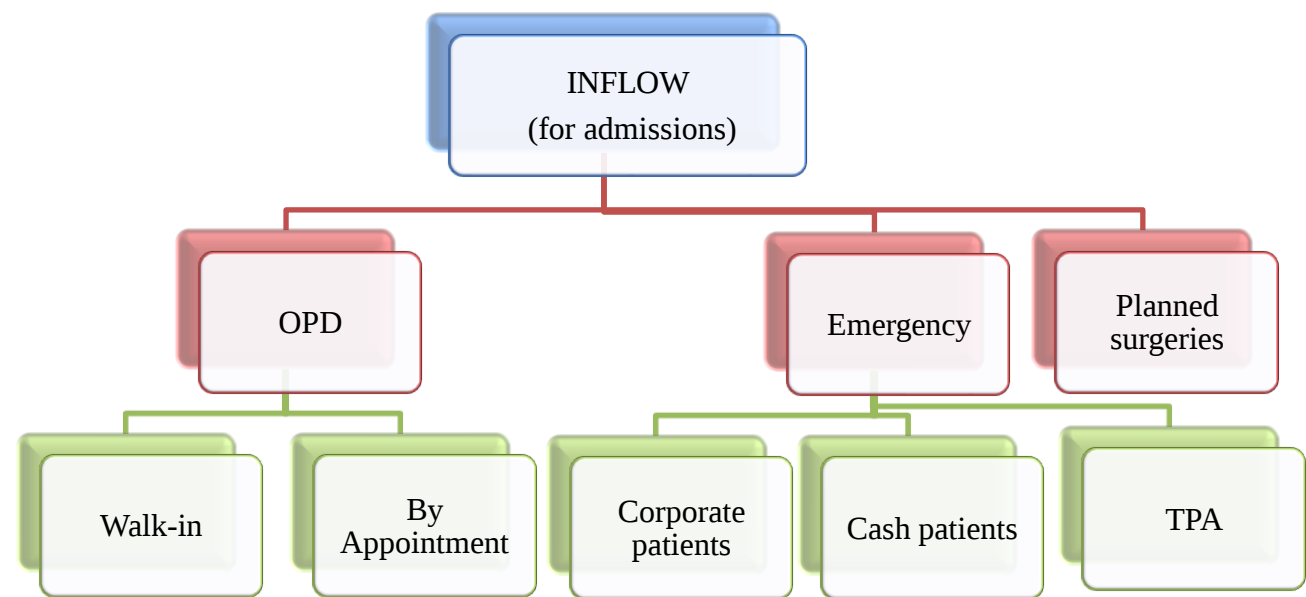
The general process flow that is followed in all the OPDs is as follows:



ADMISSIONS DESK

- If the patient has to be admitted to the hospital , he/she first reports to the admissions desk wherein all the paperwork is completed , do's and dont's as well as patient's rights and duties are explained to him. An initial token amount is deposited here by the patient which is according to his preference of the room (be it economy , single , twin sharing or suite)
- In case of TPA patients, the admission has to be reported to the insurance company within 24 hours.
- STAFF – 70-80;work in shifts in coordination with TPA staff

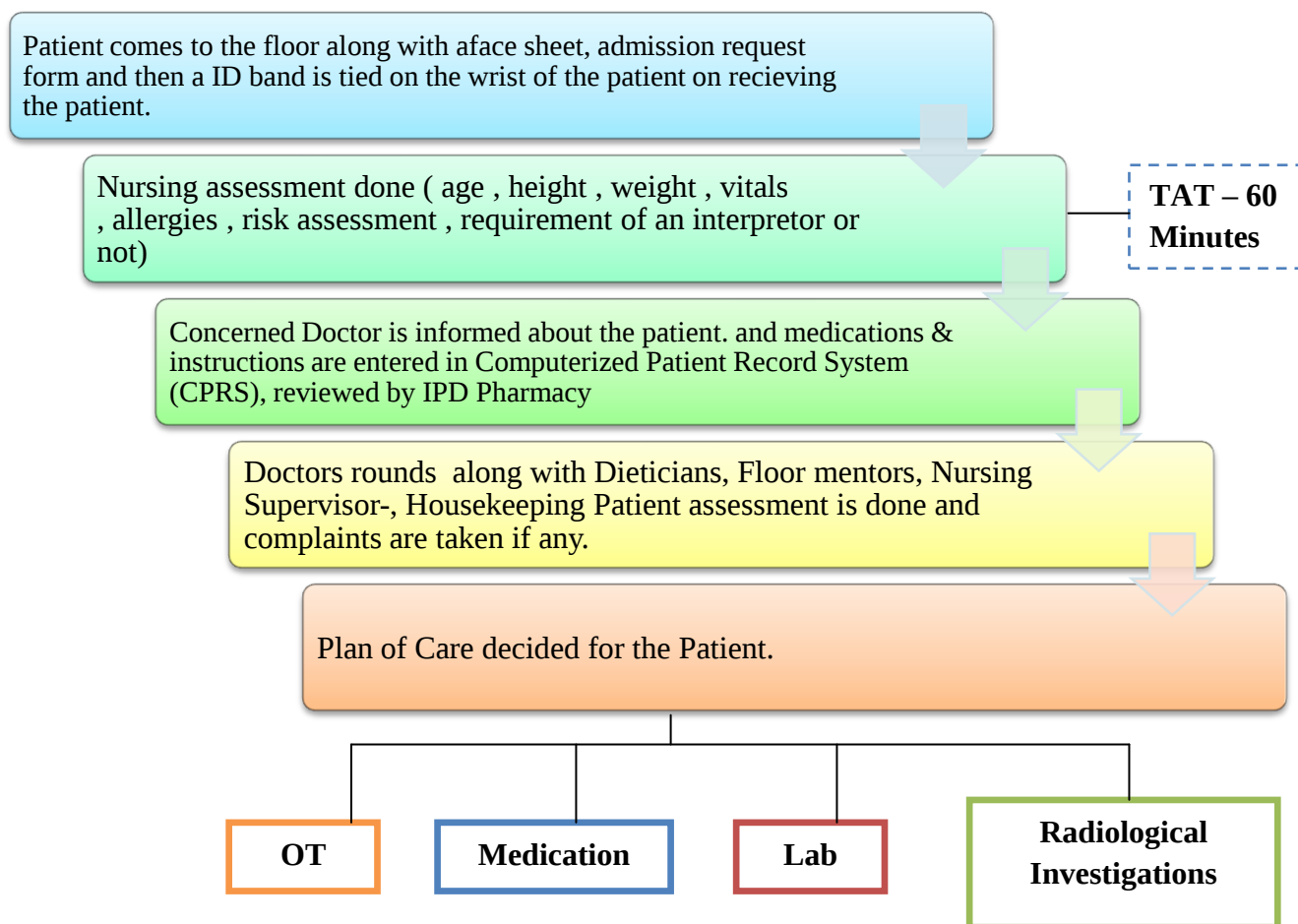
ISSUES- Huge departmentalisation which causes co-ordination problems



IN-PATIENT DEPARTMENT (IPD)

- IPD is distributed over four floors (3rd-6th) in the east wing and over five floors (2nd-6th) of Max hospital including a total number of beds.
- Every bedside has:
 - Details of Consultant, Nurse and Mentor written at the top of every bed
 - Room equipment checklist – side rails, Oxygen, Suction
 - Important Instructions
- The rooms available in IPD have the following structure of beds per room:
 - Economy room – 4 beds per room.
 - Twin Sharing – 2 beds per room
 - Single Deluxe
 - VIP suite
- Every floor has a central nursing station with
 - Information Board covering:
 - Designation & Contact numbers of
 - Duty doctor
 - Administration Staff
 - Floor Mentor
 - Support Staff
 - Ward Secretary
 - Bed Manager
 - Nurses' names with shift timing and designation(8-10 nurses per shift)
 - Crash Cart parked next to the nursing station
 - Computer on wheels (COW) - 4
 - Cupboards with forms- down time form, investigation track sheet, blood request form, PAC sheet, informed consent, inventory files and registers
 - Medication rooms – 2 ;Pantry – 1

- Records room
- Biomedical Waste Disposal
- Nurse to bed ratio = 1:5 or 1:6
- General Duty Assistants (GDAs) = 2-3 in every shift
- Average Length of Stay (ALOS) for normal Laparoscopic surgeries = 2-3 days
- Quality Indicators are: Patient Fall, Hypoglycaemia, Needle stick Injury
- Process of admission of new patient to IPD



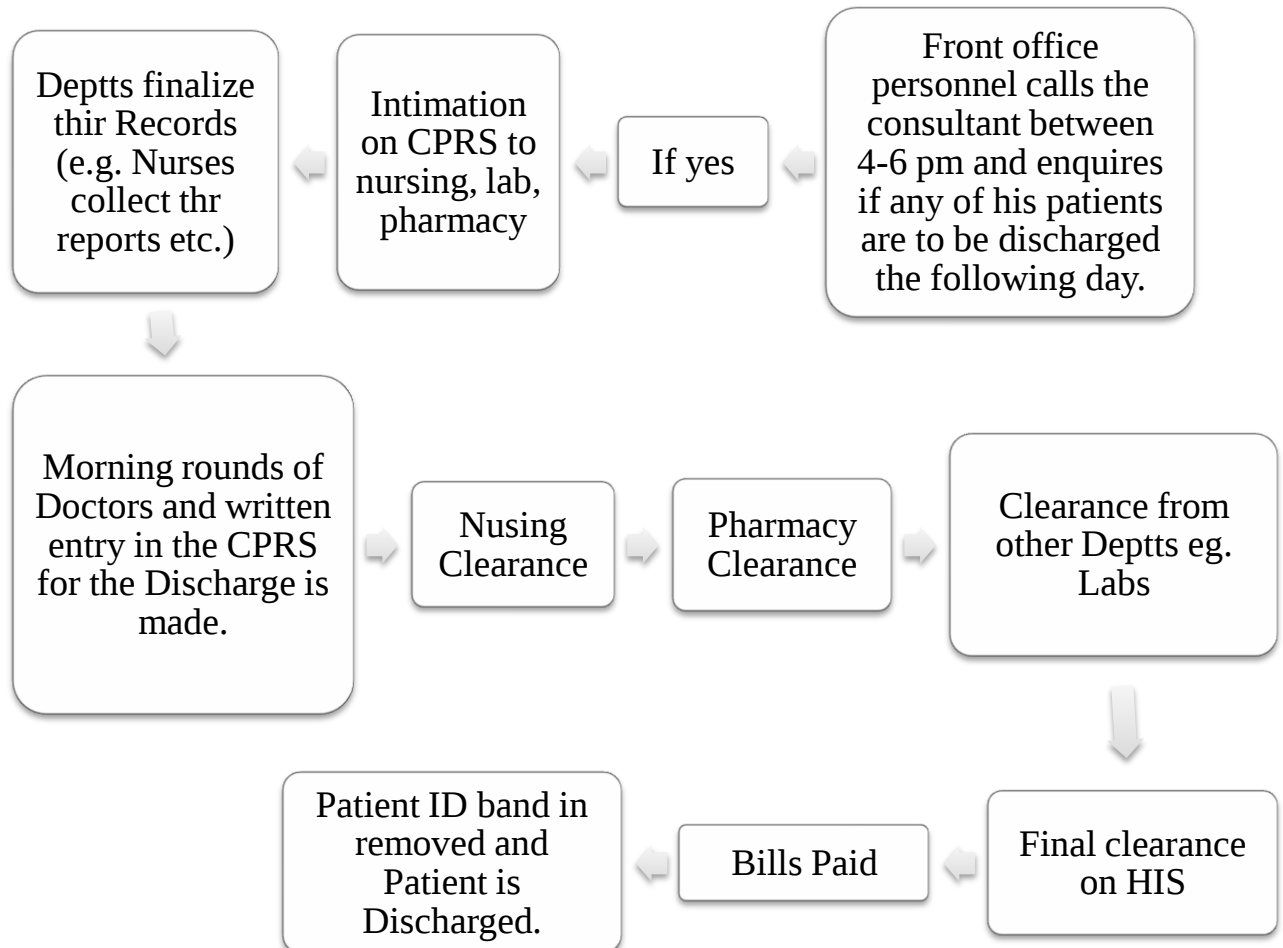
- **BARRIER NURSING-**

Isolation of the patient in case the blood or urine culture of the patient has been tested positive for any infection so that the infection doesn't spread to others .

- **REVERSE BARRIER NURSING-**

Done in cases where patient is immuno compromised so that infection doesn't travel to him from others.

- Process of Discharge of patient from IPD.



EMERGENCY DEPARTMENT

Due to the unplanned nature of patient attendance, this department provides initial treatment for a broad spectrum of illnesses and injuries, some of which may be [life-threatening](#) and require immediate attention, except for major burns. It is located at the ground floor with its own dedicated entrance and operates for 24 hours a day.

Ambulance–Total no. Of ambulance are 6 out of which

- 2 ACLS (with CCTV camera for telemedicine, Suction Cardiac Monitor, Defibrillator, Oxygen Pump)
- 4 BCLS (Ferno Stretcher, Oxygen Pump)

Patients are either transferred to other departments or are discharged within 4 hours. Max Super Speciality Hospital, Saket had made a world record for management of MI patient in emergency department from entrance to the balloon time in cath lab, in less than 35 minutes.

Response time:

- EMO response time <1 min
- Consultant response time <60 min
- Code blue response time <3min
- Ambulance response time <10 min

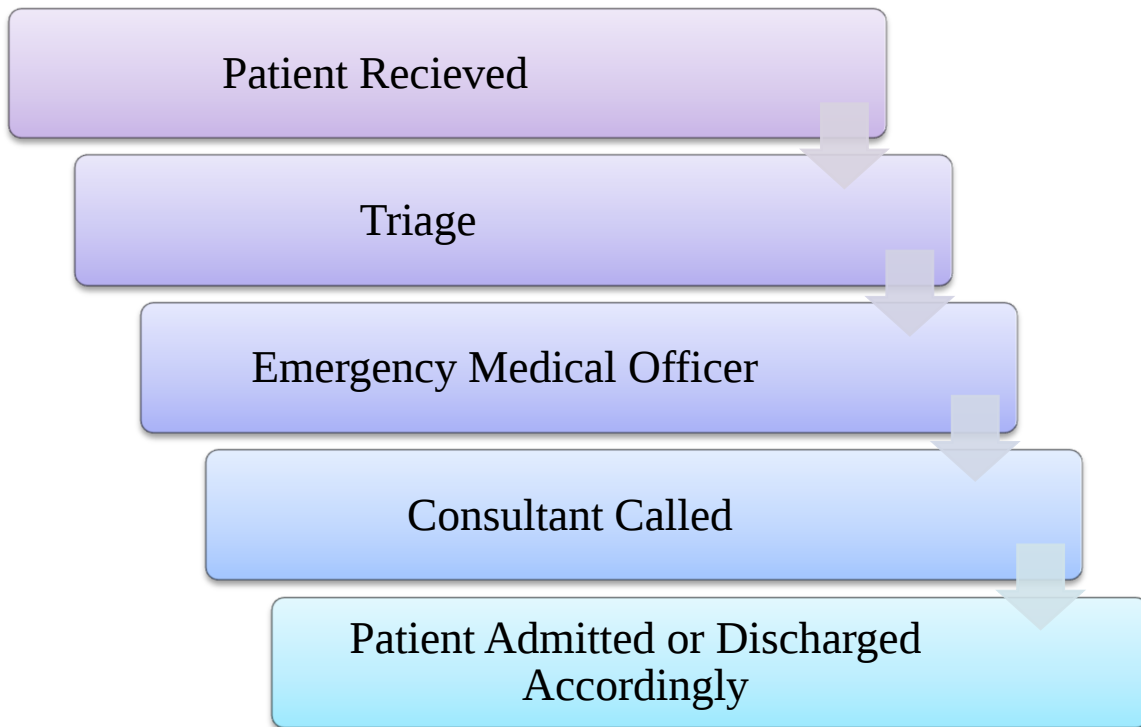
Infrastructure:

- Total 16 bedded triage
- Resuscitation suite -1 bed
- Urgent care area – 4 beds
- Observation area – 9 beds
- Clinical decision unit – 2 beds
- Doctors work station-is located in the centre of the urgent care area
- Store room- is located behind the reception. Medications are filled twice a day and stock of two days is kept in advance for Sunday. Narcotics are also available and kept in double lock and key system.
- Hospital information system and CPRS
- COWS(computer on wheels)
- Waiting area for patient's attendants is outside the department.

Staffing:

1. Senior consultant (Emergency medical officer)
2. 4 doctors
3. Team leader
4. Emergency physicians - 3
5. Nurses : 32 (8 nurses per shift)
6. 2 personnel at reception
7. Paramedical staff for ambulance
8. 4 GDA per shift
9. Outsourced staff : security personnel.

Process Flow



OPERATION THEATER COMPLEX

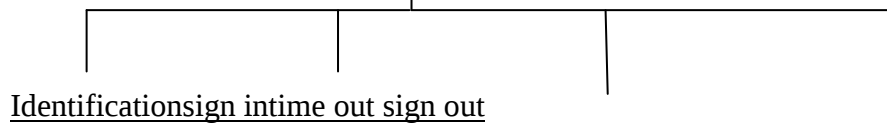
Operation theatre complex of East wing is located on first and second floor. Operation theatre complex has 11 operation theatre assigned to various departments. Cardiac, oncology , bariatric laparoscopic, gynaecology, ENT and plastic surgeries are performed in these operation theatres. Operation theatre complex of west wing is located on first floor. It has 7 operation theatres for various departments. Orthopaedic, neurology and general surgeries are performed here.

Organization of staff: The staffs of Operation Theatre are organized into four groups: Anaesthetist and surgeon, nursing staff, technician, supportive staff.

- Average number of cases done per day – 30 in each wing
- Temperature- 21 approx
- Humidity – 50-55
- Light – 2000lux in the centre of OT table and decreases on moving farther
- OT booking is done through online . 2 types of surgeries are performed – *elective*: surgeon gets PAC done and gives an appointment ;*add on*: manual booking of OT in case there is cancellation of the scheduled cases due to any reason.
- Each OT complex has a separate material store and a TSSU(Theatrical Sterile Supply Unit).
- Staffing ratio- Nurses : patients – 4:1(pre-op) ; 2:1(post-op)
Technicians : patients- 1:1

- OT Utilisation – average is 70%
- Max super speciality hospital recently got a GREEN OT certificate which signifies minimal amount of pollution caused by OT gases and acceptable standards of practices being followed here .
- Sterilisation is done by ETO (12 hrs); autoclave. Fumigation is done twice aday in the morning and evening.
- Bio medical waste disposal is done every 2 hours.
- No. Of pre-op beds -3
- No. of post-op beds -4

- **Surgical safety check list includes**



- Quality indicators: wrong patient , wrong surgeon , wrong surgery , return to OT(within 7 days) , waiting time for OT

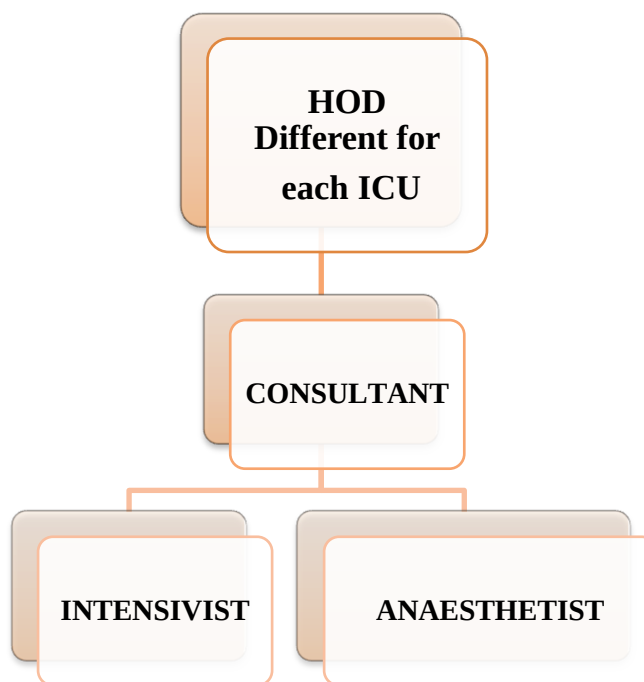
INTENSIVE CARE UNIT(ICU)

Max Saket has a total of 13 Intensive Care Units in the Hospital :

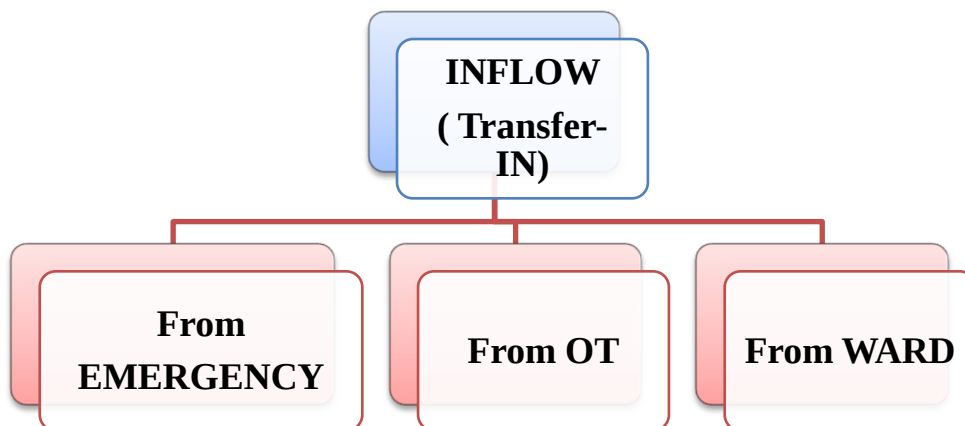
1. Respiratory ICU – 8 Bedded
2. Medical ICU – 28 Bedded
3. Neonatal ICU – 14 Bedded
4. Apex Coronary Care -16 Bedded
5. Neuro Medical ICU -8 Bedded
6. Neurosurgical ICU – 9 Bedded
7. CTVS ICU - 17 Bedded
8. Pre-neonatal ICU- 8 Bedded
9. Interventional Stroke care Unit-4 Bedded
10. Pediatric CTVS ICU- 11 Bedded
11. Surgical ICU- 11 Bedded
12. Onco Surgical ICU- 9 Bedded
13. Stroke ICU- 8 Bedded

All Intensive Care Units have a 24 hour service of Intensivist and an Anaesthesit.

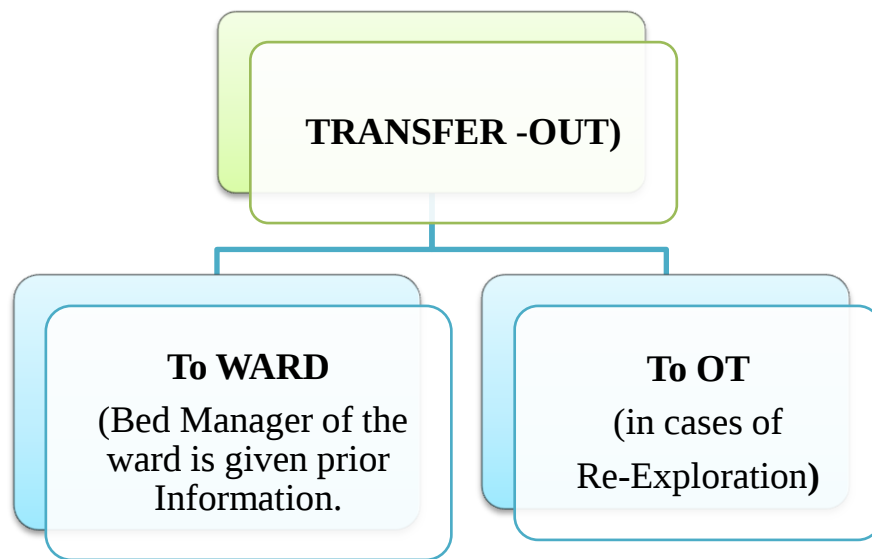
Hierarchy



Patient Flow



Before hand information is given on call to the ICU for *transfer-in* of the patient.



- Patient: nurse ratio – 1:1(for non-ventillated patients)
- Patient :nurse ratio- 1:2(for patients on ventilator)
- Patient counselling – done throughout the day ; Relative counselling – done twice a day by the Intensivist .
- Protocol for infected patients –
 - Isolation
 - Visitor's policy- no visitor allowed inside the isolation room
 - Aseptic policy
 - Full PPA
 - Separate linen disposal in separate bags
 - Separate dressing trolley
 - Separate housekeeping material- dusters, mops etc
- Quality indicators-
 - Patient falls
 - Bed sores
 - Medication error
 - Nosocomial infections

All the Quality indicators are duly noted in “Quality Flash” and it is audited time to time and measures are taken to reduce the number of incidents.

CATH LAB

Catheterization laboratory or cath lab is an examination room with diagnostic imaging equipment used to visualize the arteries of the heart and the chambers of the heart and treat any stenosis or abnormality found.

Diagnostic procedures performed here are:

- Angiography
- Electrophysiology study
 - Cath study

Out of these 3 angiography, angioplasty and cath study is done in cath lab 1 and EPS is done in cath lab 2.

Other procedures are:

- Percutaneous Transluminal Coronary Angioplasty
- Peripheral Transluminal Angioplasty
- Radio Frequency Ablation
- Permanent Pacemaker Implantation
- Intra Cardiac Defibrillation
- Cardiac Resynchronisation Therapy Defibrillator Device
- Cardiac Resynchronisation Therapy Pacemaker
- Left and right sided pressure studies
- Closure of some congenital heart defect

Slots are booked for everyday as per the doctors' and patients' convenience. About 70% of the slots booked are treated everyday

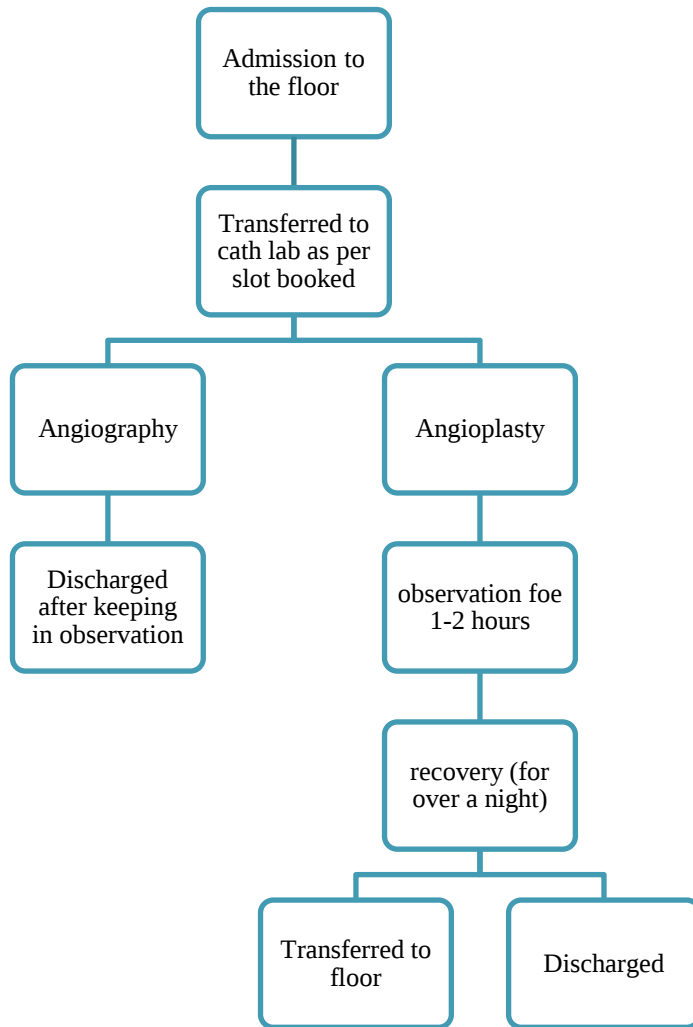
Units of cath lab:

1. Cath lab 1
2. Cath lab 2
3. Technical room
4. Observation area
5. Technician room
6. Store room and utility room
7. Observation area-7 Beds
8. Instrument washroom

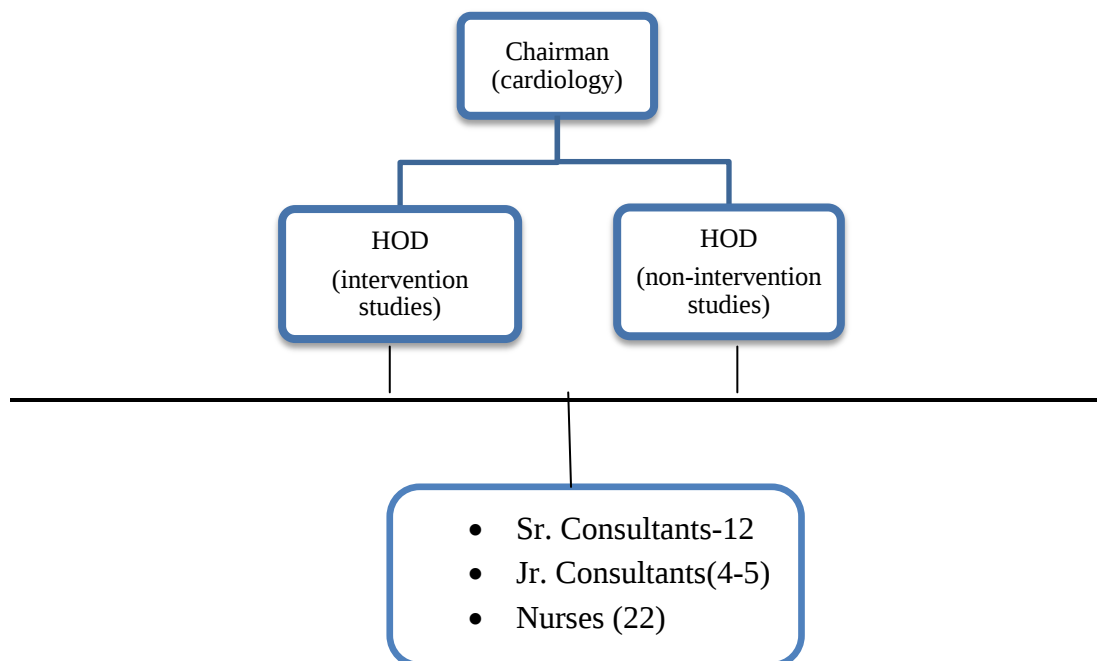
Location: Cath lab is located on the first floor with the vicinity areas as

- Emergency department
- Operation theatre
- Cath recovery-14 Beds
- Coronary care
- CTVS OT
- SICU
- PICU
- MICU

Process Flow of Patients



Staff



DEPARTMENT OF LAB SERVICES

INTRODUCTION-

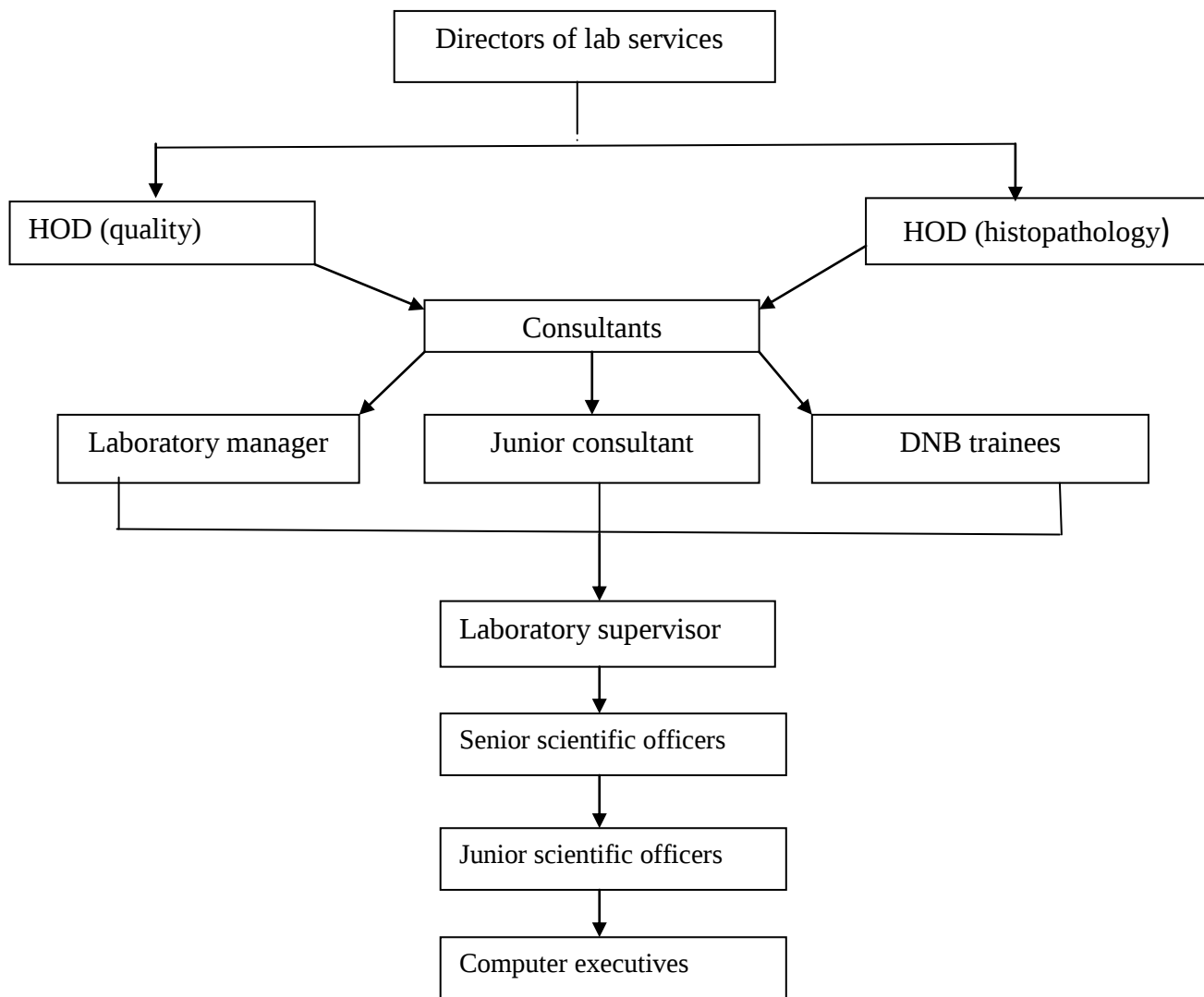
An ISO 9001:2000 certified lab, it is open 24 hrs a day. It's a high-tech lab with fully automated instrument which are directly interfaced with ***hospital information system*** and ***laboratory information system***. Facility of stat tests (emergency) and sample collection from home is also available.

LABORATORY COMPRISES OF THE FOLLOWING DEPARTMENTS-

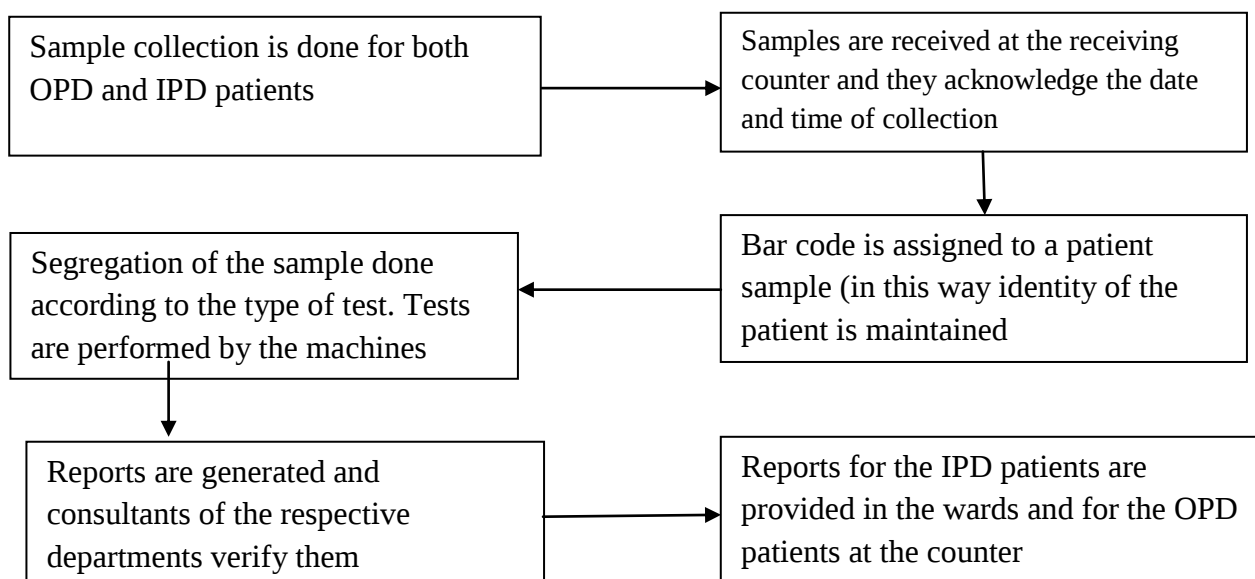
- Biochemistry
- Haematology
- Immunoassay
- Histopathology
- Clinical pathology
- Serology
- Microbiology

HIERARCHY- The Department of Lab Is Broadly Divided In Two Departments

- Lab medicine
- Histopathology



PROCESS FLOW-



LABORATORY INFORMATION SYSTEM-It is connected with hospital information system

- Sample received-red colour
- Samples acknowledged-yellow colour
- Test done-blue colour
- Result verified-green colour
- Billing done-pink colour

RADIOLOGY DEPARTMENT:-

Situated at the ground floor of the west wing of the hospital.

The total staffs working in the Radiology Department are 60.

Procedures done in the department:-

(1) Routine X-Ray studies

- (a) Plain - e.g. chest, spine, etc
- (b) Routine fluoroscopic procedures e.g. Barium studies

(2) Routine ultrasound studies

- (a) Ultrasonography - e.g. Abdomen, Pelvis
- (b) Doppler studies peripheral (B/W & colour) e.g. 2 D echo, vascular studies, etc

3) Mammography

4) Dexascan

5) Special imaging techniques

- (a) CT Scan (Computerized Axial Tomography)
- (b) MRI (Magnetic Resonance Imaging)

Divided into two parts:-

- 1) For Ultrasonography, mammography, Dexascan
- 2) For CT scan, MRI, X-ray, fluoroscopy

Consist of:-

- 1) Reception:-Counter for appointment and billing
- 2) Waiting room with general facilities like toilets, drinking water,air conditioning
- 3) Diagnostic room
- 4) Counseling room
- 5) Changing room
- 6) Film processing room
- 7) Radiologist office
- 8) Report collection room

There are two MRI and one CT scan machine in the department.

Timings for OPD patients:-8am to 8pm

In between this IPD and Emergency patients are also taken.

Main OPD hours: - 8am to 6pm and after 8pm only IPD and Emergency patients are taken

Report collection: - If the scan is done before 12pm, reports are ready by the evening and can be collected in the same evening. And if done after 12pm, report will be delivered next day.

Patient who comes in the radiology department either walks in or takes the appointment.

Appointment patients are given preference whereas walk in patients have to wait. Emergency, doctor's referred patients or ICU patients scan is done as soon as possible.

Process flow in radiology department (OPD)

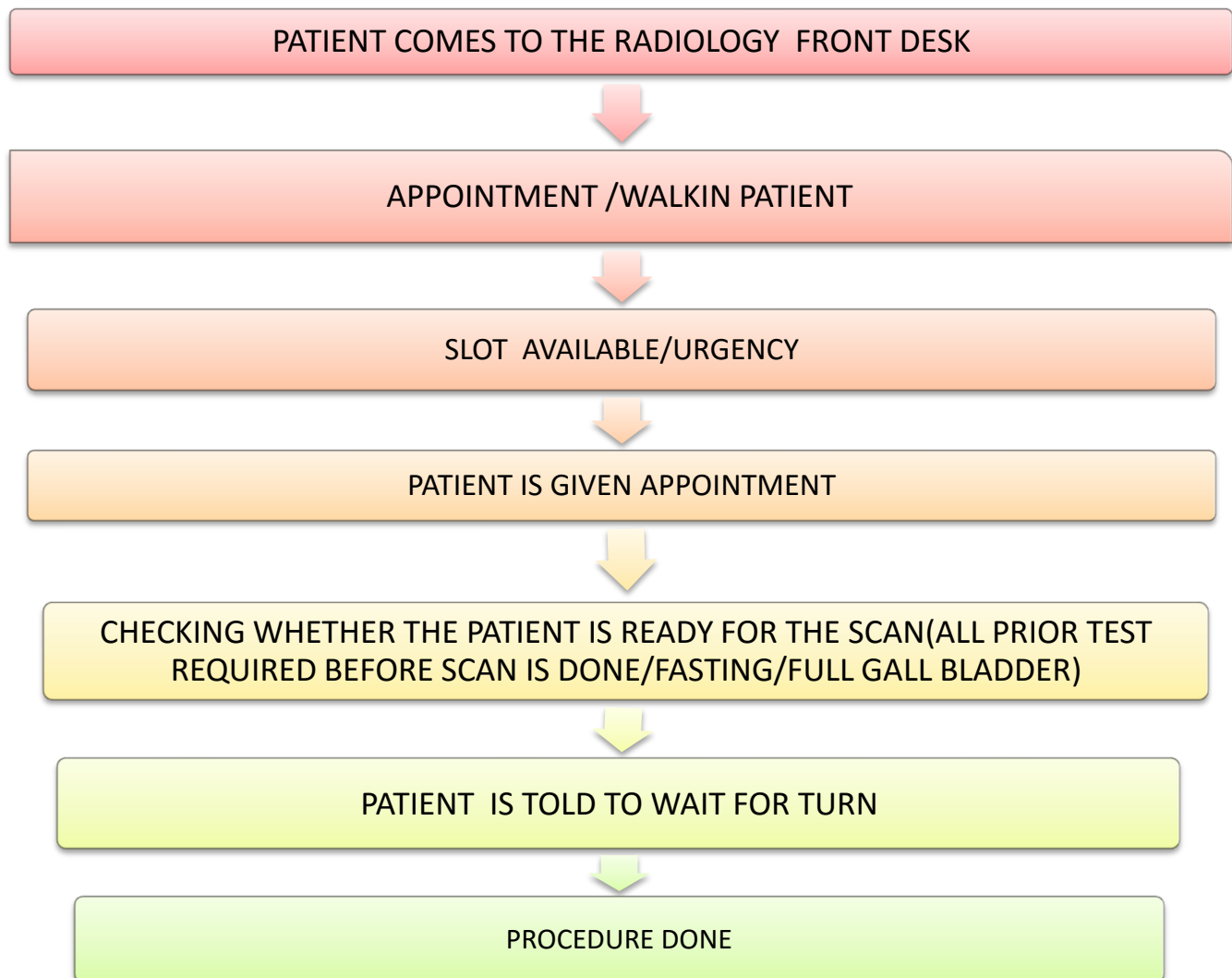


Figure:-Process flow in radiology department for outpatients.

Firstly, the patient comes to the radiology front desk after been prescribed by doctor for the scan; patient is either taken prior appointment or walk in patient. The availability of the slot required is then checked for the walk in patient by the front desk. Once the slot is checked, the requirements for the scan i.e. condition of the patient required to undergo the scan is checked. (E.g. proper creatinine level for renal patients).After that the patient is been provided the appointment and been told to wait for his turn. Finally the procedure is been performed.

- Emergency patients especially with a critical diagnosis – highlighted in the register and the consultant is immediately informed about the findings.
- Procedures wherein contrast is to be given, for example MRI,consent of the patient is taken prior to the procedure.

BLOOD BANK

Max super specialty hospital has its own blood bank. All blood groups are available. But it is preferred that patient arranges blood through his relatives or any friend and should give replacement.

Blood bank consist of

1. Sample collection area / reception area: In reception area a form is given to the attendant of the patient regarding their details before he/ she donates the blood.
2. Aphaeresis area: blood have several components including red blood cells platelets and Plasma. Donor aphaeresis is a special type of blood donation in which a specific component platelet, plasma is withdrawn from donor
3. Component room: In component room the whole blood is separated into packed cells FFP and platelets.
4. TTI room: It is to diagnose transfusion transmitted infections. If donor is detected positive for TTI status it means donor have the potential to transmit the infection to their partner and children.
5. Issue room: This room is to issue the screened blood bags.

Staff of blood bank consists of 1 HOD, 2 blood bank officer, 1 technician supervisor, 16 technicians, 2 staff nurse, 2 computer executives, 4 GDA.

- The Department is headed by Dr.SangeetaPathak and the technical manager is Ms.Ruchi.
- The blood donation timings are from 9am to 5pm and approximately one volunteer comes for donating blood. Blood can be donated after every 3 months.
- The PRBC are stored for 45 days at 2-6 degree Celsius.
- The Platelets are stored for 5 days at room temperature $22\pm$ Celsius.
- The FFP (Fresh Frozen Plasma) are stored for 1 year at -40 degree Celsius.

CENTRAL STERILIZATION SERVICE DEPARTMENT

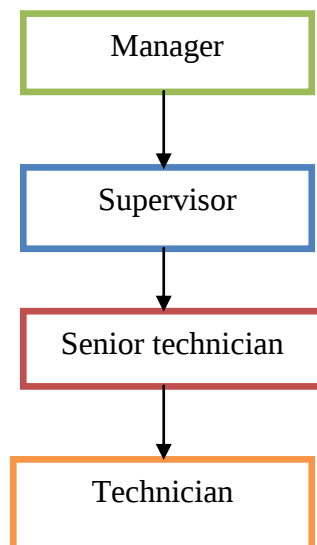
INTRODUCTION-

CSSD is the heart of the hospital infection control and the most important unit of the clinical support services. CSSD role lies in receiving, cleaning, packing, disinfecting, sterilizing, storing and disinfecting instruments as per well-delineated protocols and standardized procedures.

CSSD department in max healthcare, Saket is a centralized department and the location of the department is in the basement

The main aim of the CSSD department is to reduce the level of micro-organisms from 10^6 to 10^{-6} .

HIERARCHY OF THE DEPARTMENT-



The Department is headed by Dr.Sanjeev Bhatia.

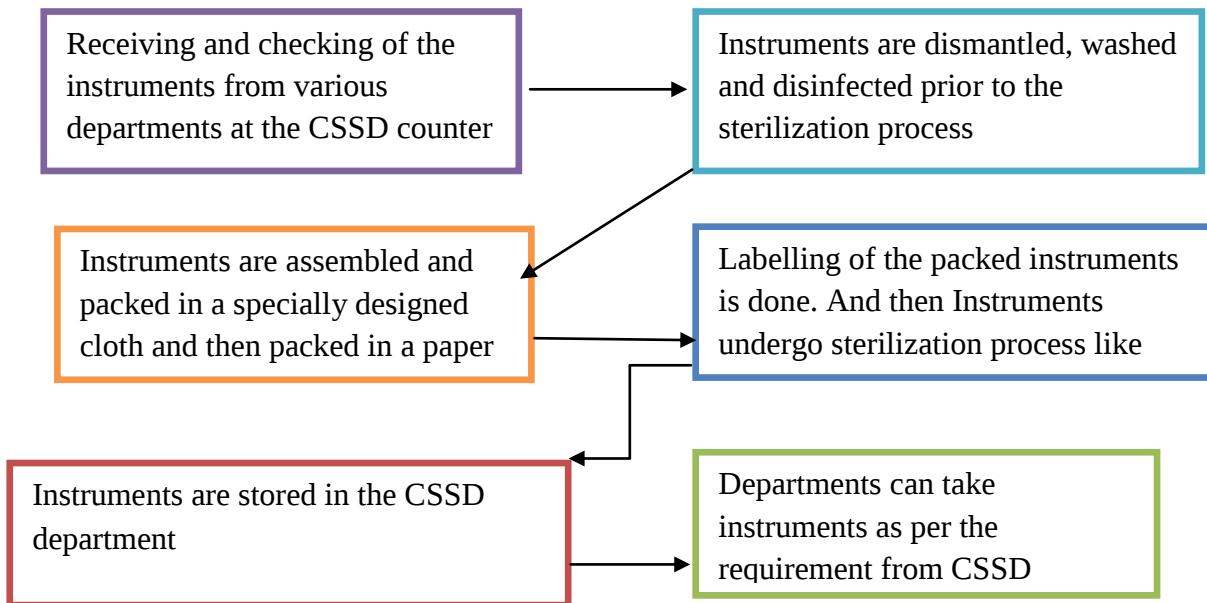
ZONES PRESENT-

- Decontamination
- Clean
- Sterile

Colour coding for the following zones -

- Decontamination area-red colour
- Clean area-blue colour
- Sterile area-green colour

PROCESS FLOW-



- At the time of receiving the instrument at the CSSD department, the instruments are counted, checked for any damage, segregated according to the method of sterilization required for the instrument.
- Instruments used for the washing of the instruments are fully automated and according to the European standards.
- For packing of the instruments medical grade paper and cloths are used which are specifically designed for the purpose(they have a zig -zag pattern)
- Once sterilized and packed instrument can be used within 6 months.

EQUIPMENT LIST-

- Washer-
- Autoclave -
- Plasma sterilizer-
- ETO sterilizers-
- Dryers-
 - Air-guns-
 - Water-guns-
 - Ultrasonic cleaners-

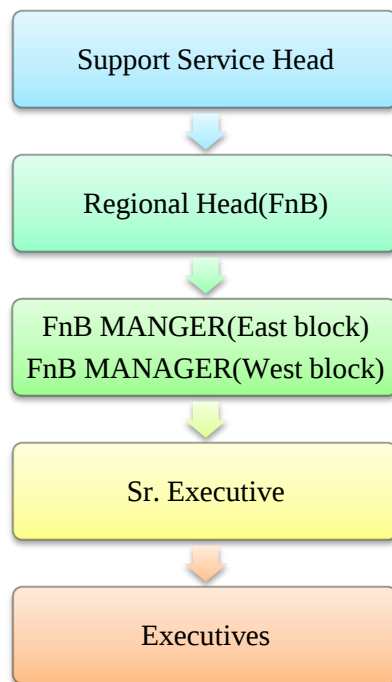
QUALITY INDICATORS-

Various quality indicators used in CSSD are-

- **Batch monitoring strip**- a yellow colored strip which is attached to every lot which on exposure to right temperature and pressure turns black

FOOD & BEVERAGES

- Food & Beverage department is responsible for the supply of food to the in-patients and sometimes their attendants (if required) and also for arranging food during various meetings and conferences in the hospital.
- The department has been outsourced to sodexopvt, ltd., however, the management and supervisory staff is in-house.
- Staff- 230 (outsourced) ; 11 (Max in house)
- Hierarchy



Time table for the diet of the patient

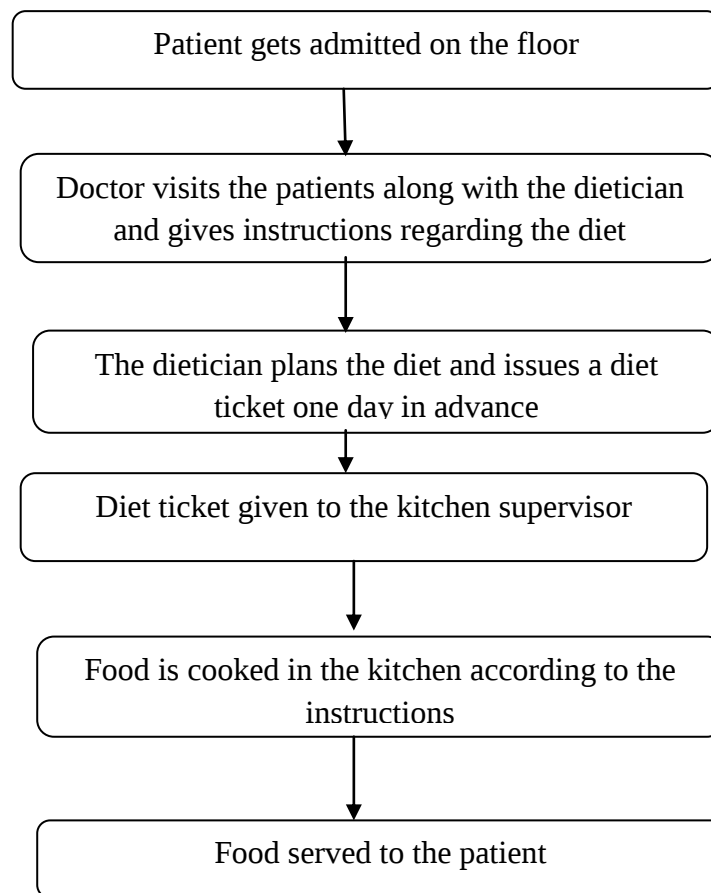
7-8AM	Breakfast
10:30-11:30AM	Soup/Beverages
1-2PM	Lunch
4-5PM	Evening tea
6-7PM	Soup
8-9PM	Dinner

- Dinner of the same day, breakfast and lunch of the next day are decided prior in the evening and diet tickets are issued by the dietician and given to the chef.
- Apart from these if patients wants to have something extra, those can be provided to the patient after consulting dietician, but for an extra charges.

Different menus offered are:

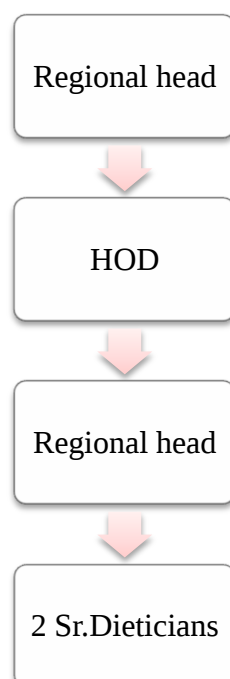
- Continental
- Afghani – for middle east patients
- No onion and garlic – for middle east patients
- Indian

- **Process flow** of the department



DIETETICS

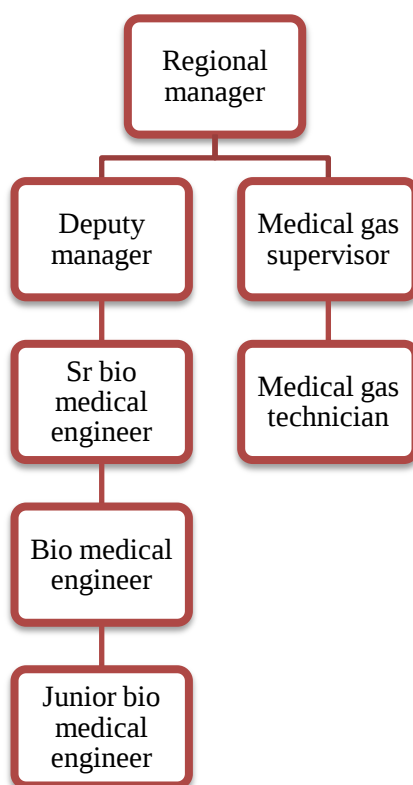
- The department plans diet for all IPD patients in accordance with the primary consultant's opinion on the same.
- Staff- 13 in total.
- Hierarchy



- Dietician: patient – 1:50
- Assessment of each patient to be done within 24 hours of admission and thereafter every 8th day after initial assessment.
- For enteral nutrition, all commercial supplements for each disease are available.

BIOMEDICAL ENGINEERING

- This department deals with purchase, installation and commissioning, training on operating, handling and maintenance of medical equipment in all departments of the hospital.
- Looks after running equipment and new equipment.
- For Running equipment
 - Preventive maintenance is done – to prevent breakdown, maintenance is done.
 - Calibration is done – i.e. to check how accurate an equipment is functioning
 - Breakdown call is checked for
 - Depreciation is measured
- For new equipment
 - Installation and commissioning is done.
- AMC and CMC records are maintained.
- CAPEX(Capital Expenditure) and OPEX(Operating Expenditure) registers are maintained.
- Equipment Incident report is made in case of any physical damage – it is filled mentioning how the damage didhappened. Thereafter replacement or repair whatever is required is done.
- Organisational chart



- Gas manifolds are also handled by this department and Max is awarded green OT certificate because of the efficient dispersion of OT gases.

PHARMACY

Max pharmacy is self-owned with Central Pharmacy situated at corporate office, Okhla. There are 2 In-patient pharmacy stores and 2 Out-patient stores in the hospital.

PURCHASE

Auto purchase requisition is given to central purchasing team which is forwarded to vendor (outsourced). For purchasing the items ABC method is followed. Weekly requisition is done and vendors take minimum 3 days for delivery of drugs to hospital.

STORING OF DRUGS

Medicines are arranged according to VISTA (e-care) in Client patient record system via generic name in alphabetic order in racks, shelves, cupboards and drawers. Oral, parenteral and topical items are stored separately. Near expiry (expiry within 3 months) is stored in separate designated area to expedite the consumptions.

INDENT AND DISPENSE OF MEDICATIONS.

In patient pharmacy-

In CPRS, Medication orders posted by the clinicians is verified by pharmacist on PUTTY System labelled with (patient info, SSN no., drug name,) then the medications are dispatched after Billing via HIS (Hospital information system) and finally handover to GDA to dispense medicines. The Stat orders required immediately are dispensed within 30 minutes. The normal order is dispensed within 1 hour and routine order is delivered by 1 round per day.

NARCOTICS DRUGS

They are kept in double lock and key system. Documentation of narcotic drugs is appropriately maintained.

Narcotics drugs under statutory regulation being used in max hospitals includes: injection and transdermal patch of Fentanyl and injection and tab. of Morphine.

LOOK ALIKE AND SOUND ALIKE DRUGS

Look alike and sound alike medications have high medication error due to similarities in nomenclature and packaging.

In the main pharmacy stores, (SALA Medications) are stored separately in 2 adjacent racks with blue coloured sound alike and pink coloured look alike medications warning stickers to avoid confusion while dispensing.

Medication Recall: If a drug is found to be defective, it is reported to the Okhla office where the records for that particular series of drugs dispensed is checked and verified for medication recall.

Licences acquired by Max hospital pharmacy –

1) Pharmacist License

2) Narcotics License

INVENTORY MANAGEMENT PARAMETERS

I. ABC Class

A Items: 7 days

B Items: 10 days

C Items: 15 days

II. EOQ - (economic order quantity)

III. LEAD TIME – Time from ordering to delivery of drugs

IV. VED – Vital Essential Desirable (According To move of drugs)

CALL CENTRE

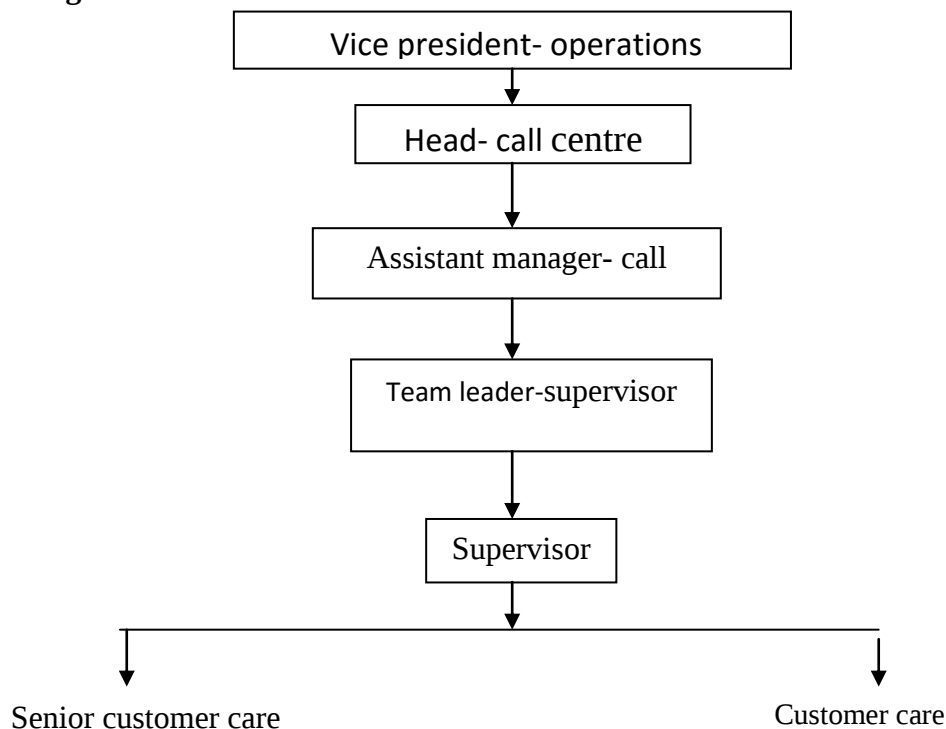
Call centre of Max hospital, Saket operates at 24*7. It is centralized patient contact centre for saket. It can be used as an information centre for all customers.

Call centre deals with:

- Doctor's appointment
- Health check ups
- Radiology and diagnostic appointments
- Patient's information
- Doctor's information
- Employee's information
- Speciality information
- Other department information
- It handles internal emergency e.g. Blue code

Main board line number is: 26515050

Organization chart:



SECURITY DEPARTMENT

The security department is an eye and ear of every organization acting as a liaison between management and staff. The control room of Security Department is located on B1 (basement) of East Wing, Max Saket.

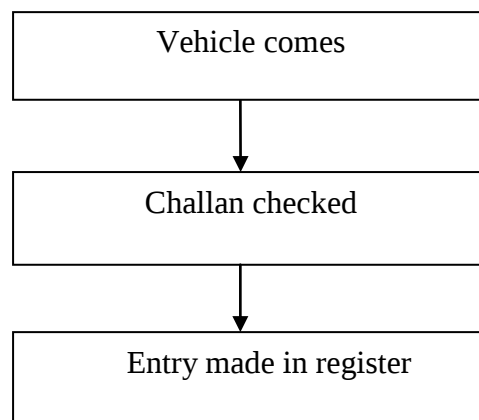
Functions of Security Department:-

1.Security management:-

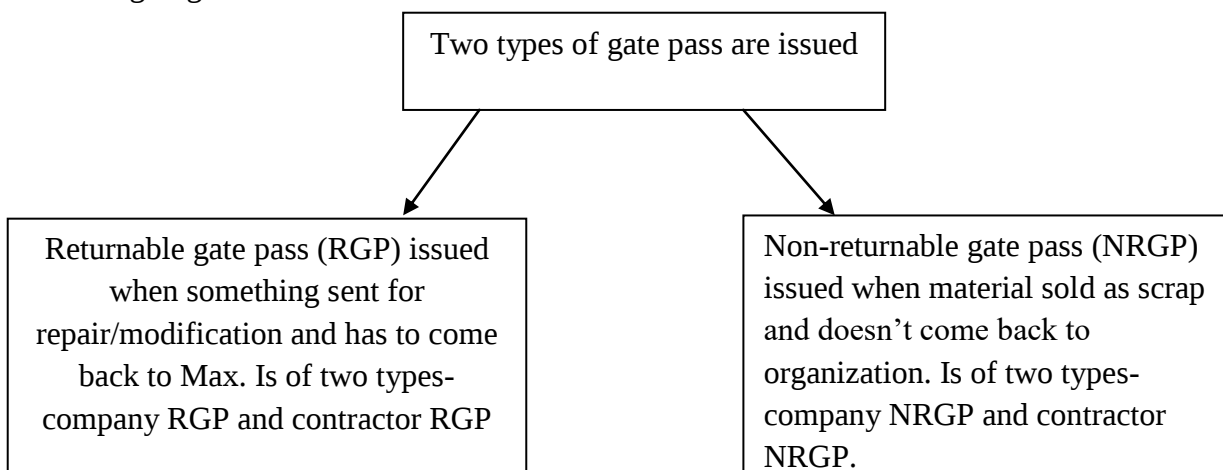
- Selection of people(guards and supervisors)
- Deploying of security staff to different floors and departments
- Checking of people entering hospital
- Turnout and grooming of security staff
- Training of security staff
- MLC handling
- Dispute handling

2.Material management:-It includes management of both incoming and outgoing materials.

a. Flow for incoming materials:-The incoming materials are received either from a company or a contractor to Max.The process flow is as under:-



b. Flow for outgoing materials



Disaster management:

There are six emergency codes:-

1. Red- Fire
2. Black- Bomb threat
3. Blue-Cardiac arrest
4. Yellow- External disaster like earthquake
5. Violet-Violent patient
6. Pink- Missing patient

The SOP's and disaster management plans are prepared by the Security Department. Fire management system includes smoke detectors, sprinklers fitted on ceiling and fire shafts in all corridors.

Walkie talkies are an important source of communication.

Other disasters include floods, water logging, terrorist attacks.

4. Valet management:-

- Helps to optimally utilize the parking space.
- Within a time frame of maximum 7 minutes, vehicle is handed over to customer when asked for in porch.

HUMAN RESOURCE MANAGEMENT

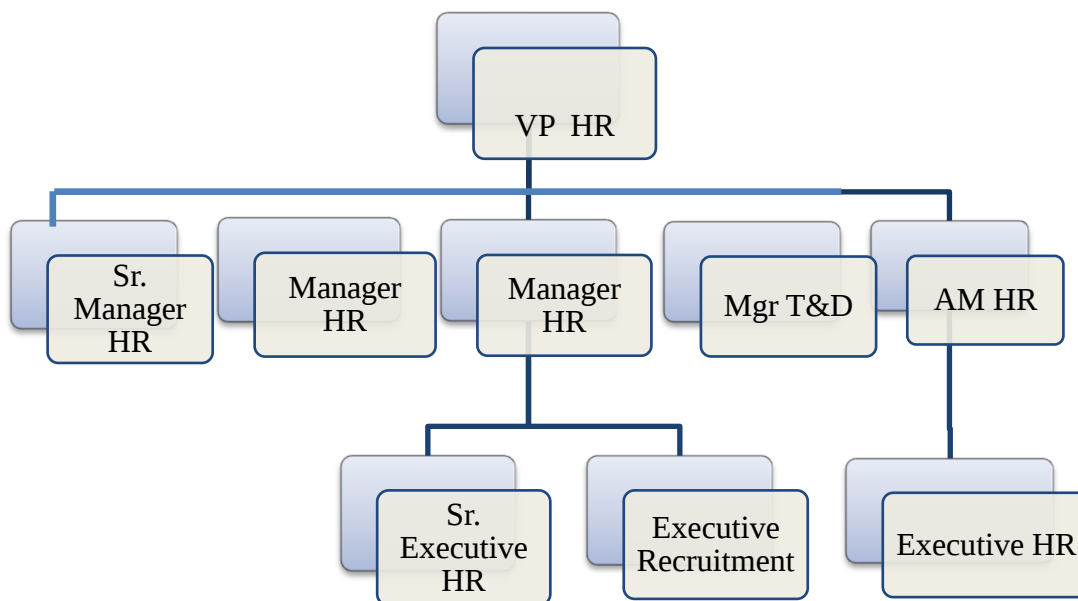
Human resource management (HRM or simply HR) is a function in designed to maximize employee performance in service of their employer's strategic objectives. HR is primarily concerned with how people are managed within organizations, focusing on policies and systems.

Following are the policies undertaken by the Human Resource Management Department:-

- Human Resource Planning Policy.
- Job Profile Format.
- Recruitment policy.
- Training and development policy.
- Induction and Orientation policy.
- Performance appraisal Policy.
- Complaint & Grievances Redressal Policy.

- Disciplinary Policy.
- Medical Discount Policy.
- Annual Medical Check-up Policy.
- Clinical credentialing and privileging Policy.
- Nursing Credentialing and Privileging Policy.

HR Structure



INTERNATIONAL PATIENT SERVICES (IPS) DEPARTMENT

It takes a lot to be a world-class health care services provider and as per patient registration data, over 11 Lakh overseas patients have been helped to get back to their normal lifestyle. This department, situated in East wing, is exclusively dedicated for the services of international patients.

Contact Procedure:

- Patient sends a query and/or reports
- IPS Team consults the relevant consultant and provides diagnosis, proposed treatment and estimate
- If required, a telephonic meeting may also be arranged
- Patient confirms if he wants to have treatment at Max Healthcare to provide Visa Facilitation Letter
- Patient confirms the arrival date and time
- IPS Team, in the meantime, books room, OT etc. for the patient
- Patient is received at the Airport and then, brought to the Hospital/Guest House/Hotel

Also, another contact procedure is as follows:

- Max hospital conducts free outreach OPDs in other countries, at least 1-2 per year
- Max hospital also has tie ups with different hospitals in these countries

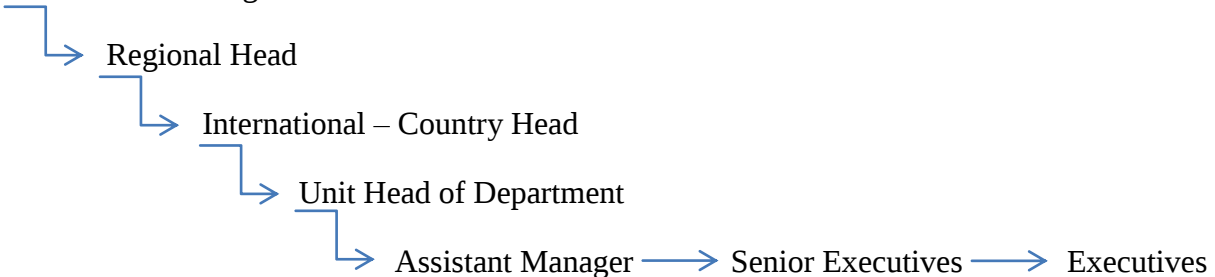
International patients avail treatment in India mainly because these facilities or treatments are not available in their respective countries, and are available at a much cheaper price in India than other countries such as US, UK or European countries. The countries from where patients come to seek treatment most commonly are Iraq, African countries (Nigeria, Congo), Oman, Uzbekistan, Afghanistan, Nepal, and Bangladesh.

The hospital provides:

- Various Regional Translators such as Arabic, Persian, Iraqi, Bangladeshi and Russian (In house interpreter).
- Assistance in ground transportation such as finding a shuttle, hiring a car or choosing any other mode of transportation within the city.
- Relationship Managers, who closely work with over 50 Diplomatic Missions and numerous Expat bodies to ensure that international patients have a comfortable and memorable stay in India.

Staffing:

Director Marketing



A STUDY ON ANTIBIOTIC PROPHYLAXIS COMPLIANCE:TIME OF ADMINISTRATION OF ANTIBIOTIC BEFORE SURGICAL PROCEDURES

STUDY TOPIC: Antibiotic prophylaxis compliance

BACKGROUND:

Antibiotic prophylaxis refers to the prevention of infection complications using antimicrobial therapy (most commonly antibiotic). It can be used effectively to prevent infection, but its use should be limited to specific, well-accepted indications to avoid excess cost, toxicity, and antibiotic resistance. Antimicrobial prophylaxis may be considered primary (prevention of an initial infection) or secondary (prevention of the recurrence or reactivation of an infection), or it may also be administered to prevent infection by eliminating a colonizing organism.

Antimicrobial prophylaxis is commonly used by clinicians for the prevention of numerous infectious diseases, including herpes simplex infection, rheumatic fever, recurrent cellulitis, meningococcal disease, recurrent uncomplicated urinary tract infections in women, spontaneous bacterial peritonitis in patients with cirrhosis, influenza, infective endocarditis, pertussis, and acute necrotizing pancreatitis, as well as infections associated with open fractures, recent prosthetic joint placement, and bite wounds. Preoperative antimicrobial prophylaxis is recommended for various surgical procedures to prevent surgical site infections. Optimal antimicrobial agents for prophylaxis should be bactericidal, nontoxic, inexpensive, and active against the typical pathogens that can cause surgical site infection postoperatively. To maximize its effectiveness, intravenous preoperative prophylaxis should be administered within 30 to 60 minutes before the surgical incision. Antimicrobial prophylaxis should be of short duration to decrease toxicity and antimicrobial resistance and to reduce cost.

Surgical antibiotic prophylaxis in terms of the incidence of SSI after elective surgery of an anastomosis of the colon, reduces postoperative mortality. In total hip replacement surgery prophylaxis reduces long-term postoperative morbidity. However, for most operations prophylaxis only decreases short-term morbidity. Surgical wound infection increases the length of hospital stay. Prophylaxis therefore has the potential to shorten hospital stay, but there is little direct evidence as few randomised trials have included hospital length of stay as an outcome measure. Nonetheless, there is limited evidence to show that prevention of wound infection is associated with faster return to normal activity after discharge from hospital.

Optimal prophylaxis includes an appropriate selection of safe and effective antimicrobials, initial dosing at an appropriate time and redosing if required, in order to maintain effective serum and tissue levels throughout the operation, and discontinuation when the patient is no longer receiving a benefit.

Rationale:

To find out the compliance of antibiotic prophylaxis administration before surgery so as to further reduce the risk of infections.

Objective:

- To determine antibiotic prophylaxis compliance in hospital during surgical procedures in order to reduce Surgical Site Infections.
- To study the usage pattern of prophylactic antimicrobials in surgical patients, in order to detect any inappropriateness concerning the, timing, redosing and the duration of antimicrobial administration.

Review of Literature

A study done at Department of pharmaceutical Technology, University of science and technology suggests that ,Surgical antibiotic prophylaxis (SAP) is not only intended to establish bactericidal tissue and serum levels at the time of skin incision, but also to reduce the microbial burden of intraoperative contamination to a level that cannot overcome host defenses. Optimal timing of antibiotic administration is considered an important factor for effective prophylaxis . Inappropriate timing may result in low plasma concentration of the antimicrobial agent at the time of incision and throughout the procedure , contributing to higher infection rates . It also suggests SAP at the time of anesthesia induction is considered the correct timing according to ASHP guidelines for most procedures, since this ensures adequate antibiotic concentrations in the targeted tissues during the period of potential contamination .

Another study at Tallahassee Memorial HealthCare, Tallahassee,Florida USA,suggests to reduce the incidence of surgical site infections, preoperative prophylactic antibiotics should be administered within 60 minutes before the initial incision is made.

Other studies have shown that the 60-minute window is not exclusively the most effective timing window and that infection rates among intervals within the 60-minute window are not equivalent. Some studies suggest that antibiotics administered 0 to 30 minutes prior to incision are associated with higher SSI rates compared with antibiotics given 30 to 60 minutes before incision.

However timing of prophylactic antibiotic administration is not significantly associated with SSI occurrence. While adherence to the timely prophylactic antibiotic measure is not bad care, there is little evidence to suggest that it is better care.

Research Methodology:

- Type of study: Prospective Descriptive study
- Study population: Patients Undergoing surgery at Max Saket Hospital
- Duration of study: 30-4-2016 to 19-5-2016
- Sample Size: 150 cases
- Total population: 734 cases
- Sampling Technique: Convenience non probability sampling
- Type of data: Secondary
- Tool of data collection: Checklist
- Source of data: Patient records, Surgical checklists, CPRS (Computerized Patient Record System), Pre-anaesthetic record.
- Data Analysis: Analysis using percentage and sort and filter on Excel

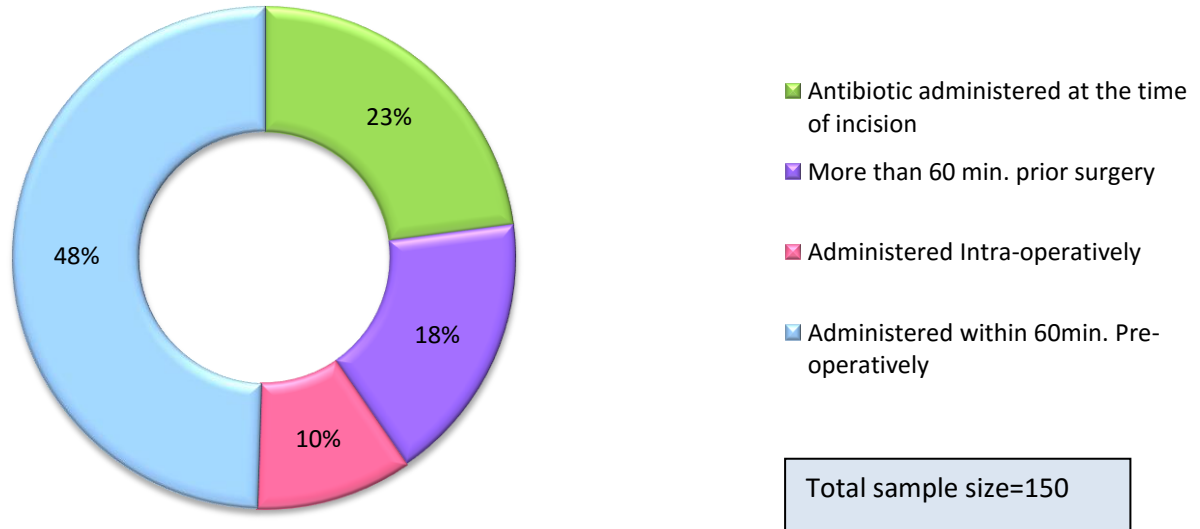
A Prospective Descriptive study was conducted at a Super speciality hospital in New Delhi on Compliance of Antibiotic Prophylaxis. Study was carried on from 30-4-2016 to 19-5-2016

For collecting primary data following steps were followed:

- A prior day list of patients who has undergone surgery was received on daily basis through quality team in hospital.
- Then a convenient sample was collected from the list; taking into consideration that various departments and various type of surgeries were included in the sample.
- Then data of time of antibiotic administration pre-operatively and post-operatively was collected through patient records and Computerised Patient Record System from various wards, HDU, ICU etc.
- The time of antibiotic administration was collected from Surgical Safety Checklist(which has to be filled in Operation Theatres) and cross checked with the pre-anaesthetic sheet in patient records (which consists details of pre-anaesthetic notes, doctors details, time of antibiotic administration, time of surgery etc.)
- After collecting these details data was entered into tool i.e. antibiotic prophylaxis checklist
- Later this data was analysed calculating difference between pre-operative administration of antibiotic and time of surgery.
- Also department wise analysis was done to check for compliance in various departments.

STUDY ANALYSIS AND GRAPHICAL REPRESENTATION:

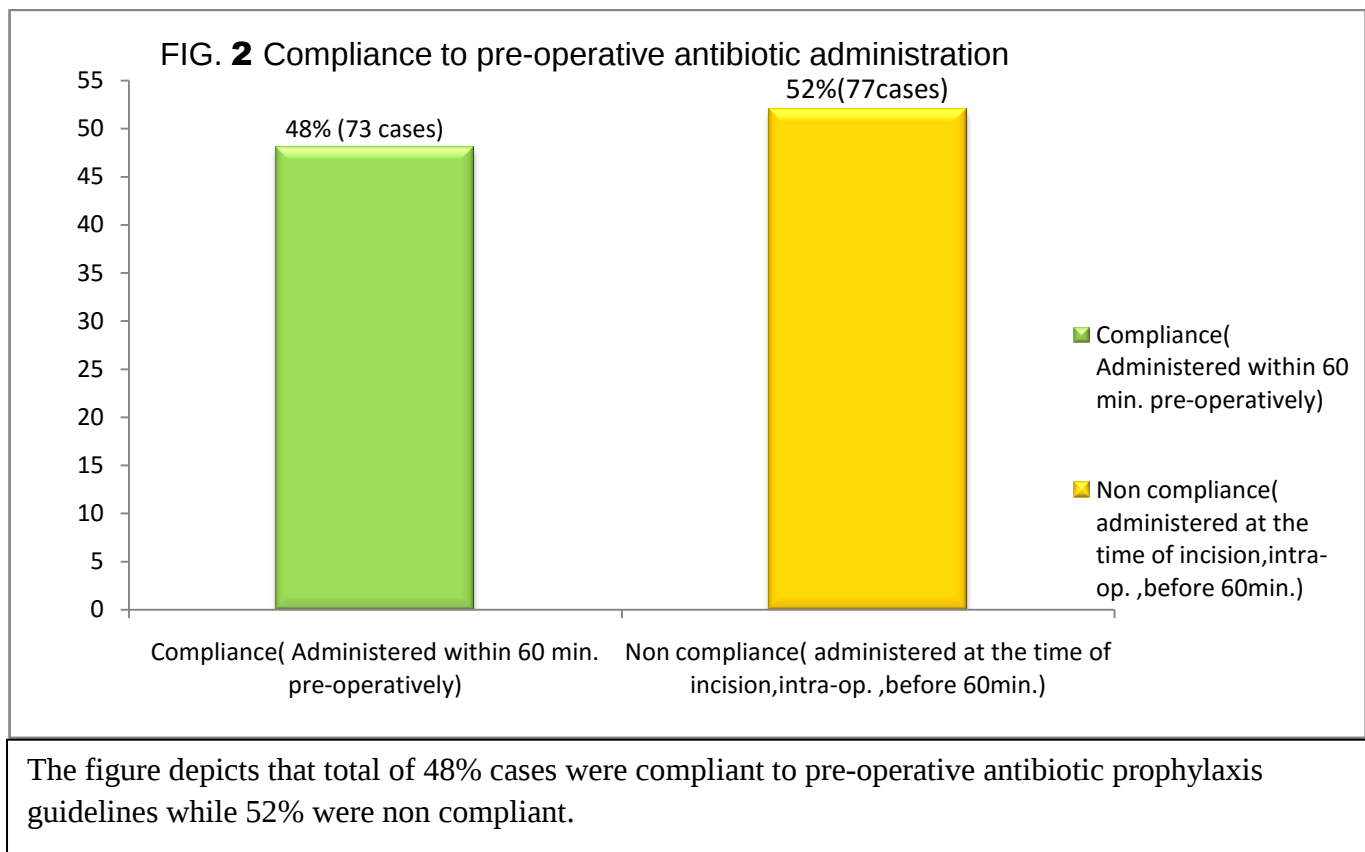
FIG. 1 Time of Antibiotic Administration in Surgery patients



Graph clearly suggests that 48% cases were administered antibiotic within 60min. prior to surgical procedure, 23% were administered at the time of incision, 18% were administered more than 60 min. prior to surgery and 10% were administered antibiotic at the time of incision.

Inference:

- Out of total population of 734 surgery patients 150 were selected for the study as per convenience for sample collection
- Among 150 cases, 33 cases were administered antibiotic at the time of incision, 16 cases were administered after the onset of surgery i.e. intraoperatively, while 28 cases were administered more than 60 min. prior to the surgery and 73 cases were administered within 60 min. prior to surgery.



Inference:

- All cases administered antibiotic within 60 min.prior to surgery were considered under Compliant cases and all cases administered antibiotic Intraoperatively, more than 60 min. prior to surgery and at the time of incision were considered among Non compliant cases.
- So among 150 cases studied 73 cases were found compliant and 77 cases were found non compliant.

DEPARTMENT WISE ANALYSIS OF DATA DEPICTING TIME OF ADMINISTRATION OF ANTIBIOTIC PROPHYLAXIS

***Note: All percentage in following graphs are calculated by taking into consideration no. of cases per department.**

FIG. 3 Antibiotic prophylaxis administered within **60 min.** of surgery

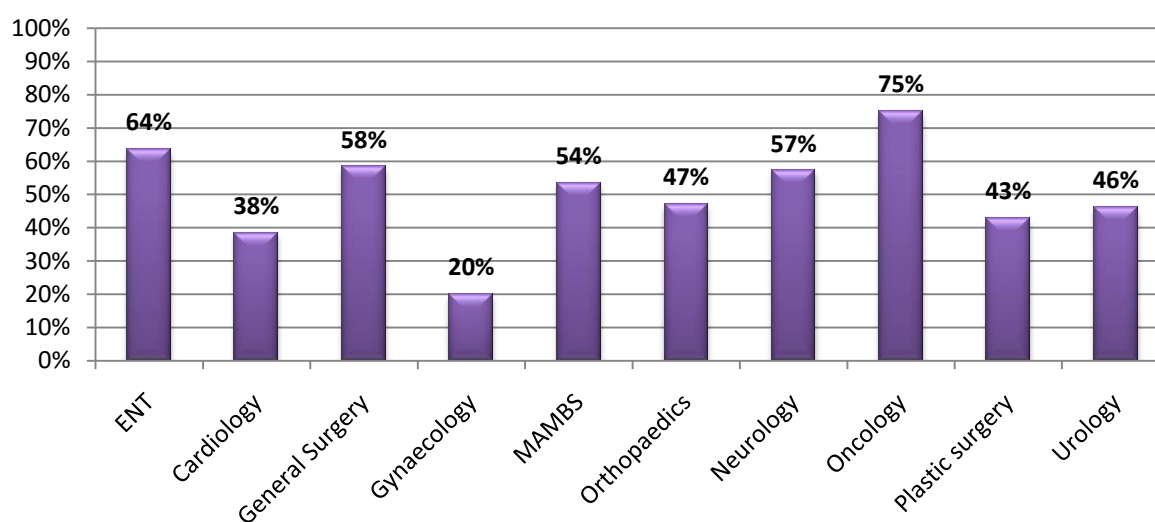
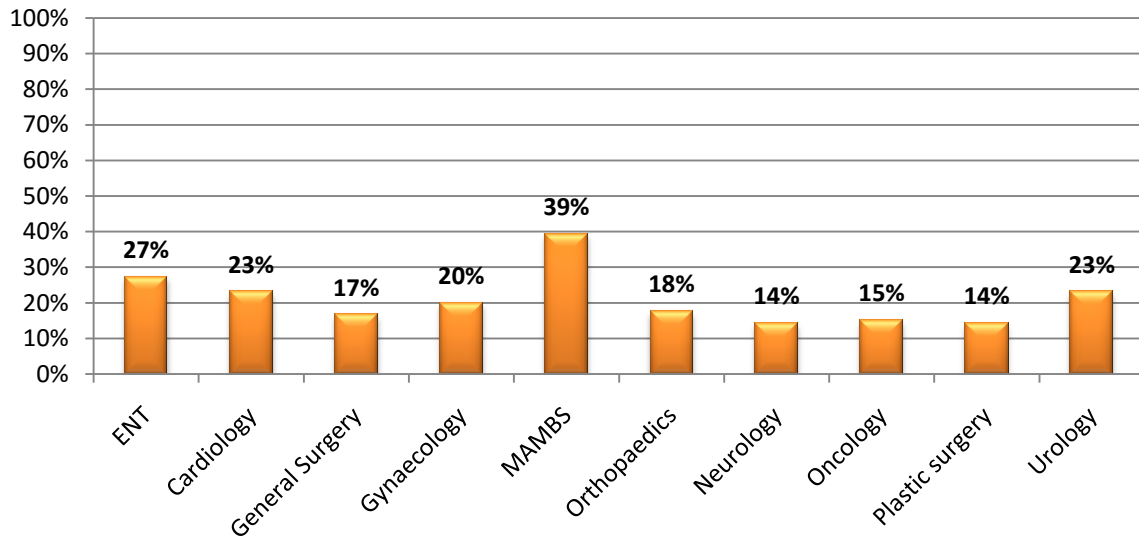


Figure depicts that in Oncology department maximum number of cases i.e. 75% were administered antibiotic prophylaxis within 60min. of surgery

Departments	No. Of Cases
ENT	7
Cardiology	5
General Surgery	7
Gynaecology	3
Minimal access and bariatric Surgery	15
Orthopaedics	8
Neurology	4
Oncology	15
Pediatrics	0
Plastic Surgery	3
Urology	6
Vascular Surgery	0

FIG. 4 Antibiotic prophylaxis administered at the time of incision



Graph suggests that maximum patients of Minimal access Metabolism and Bariatric Surgery department were administered antibiotic at the time of incision.

Departments	No. Of Cases
ENT	3
Cardiology	3
General Surgery	2
Gynaecology	3
Minimal access and bariatric Surgery	11
Orthopaedics	3
Neurology	1
Oncology	3
Pediatrics	0
Plastic surgery	1
Urology	3
Vascular Surgery	0

FIG. 5 Antibiotic prophylaxis administered Intra operatively

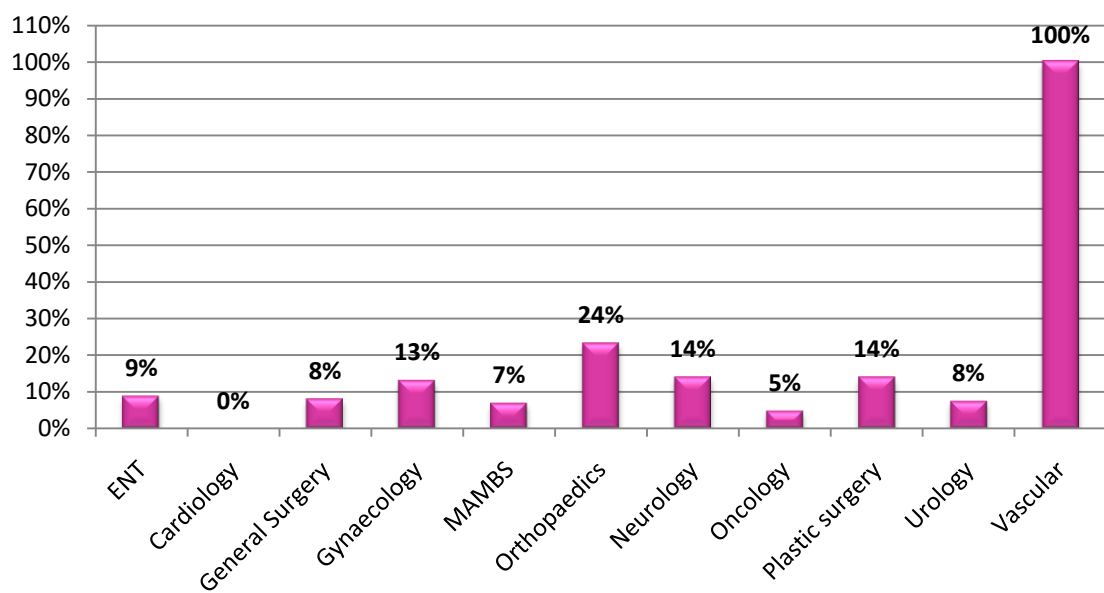
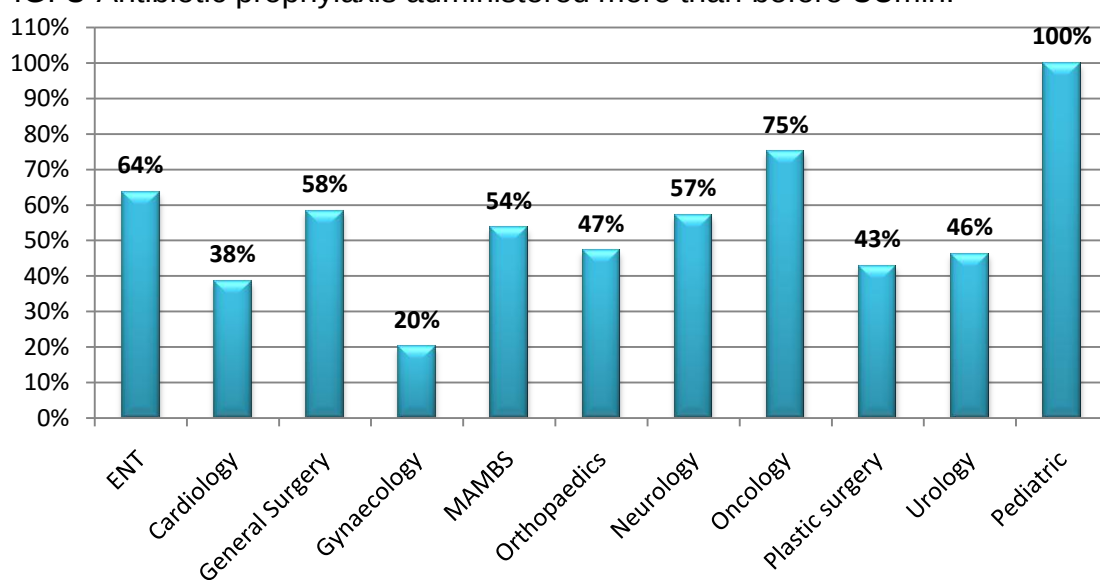


Figure depicts that almost all cases of Vascular surgery department were administered with antibiotic Intra operatively followed by Orthopaedics department which had 24% cases who received antibiotics during surgery.

Departments	No. Of Cases
ENT	1
Cardiology	0
General Surgery	1
Gynaecology	2
Minimal access and bariatric Surgery	2
Orthopaedics	4
Neurology	1
Oncology	3
Pediatrics	0
Plastic Surgery	1
Urology	3
Vascular Surgery	0

FIG. 6 Antibiotic prophylaxis administered more than before **60**min.



Graph clearly shows that almost all patient of pediatric department were administered antibiotic more than 60 min. prior surgery.

Departments	No. of Cases
ENT	0
Cardiology	5
General Surgery	3
Gynaecology	7
Minimal access and bariatric Surgery	0
Orthopaedics	2
Neurology	2
Oncology	2
Pediatrics	2
Plastic Surgery	2

Urology	3
Vascular Surgery	0

Interpretation:

Study which was carried out at a super speciality hospital suggests following findings:

- Not all the cases were administered with antibiotic prophylaxis within 60minutes before performing the surgical procedure.
- More than half number of patients are administered antibiotic few minutes prior surgery which did not help in achieving and maintaining serum level of antibiotic before surgery, which is a prerequisite in preventing and further reducing Surgical Site Infection (SSI).
- Also there are many patients which were administered with antibiotic after the surgery had started which does not help in achieving serum level in blood before surgery.
- Non adherence to antibiotic prophylaxis administration at the time of surgery leads patient to risk of SSI (acc. to many studies previously conducted).

Recommendations:

- All patients for whom prophylactic antimicrobial agents are recommended should receive them. The agents given should be appropriate in light of published guidelines.
- Proper timing should be noted down in Surgical safety checklist and also in Pre-anaesthetic record so as to make sure that the drug has been administered at an appropriate time before surgery.
- As soon as the drug is administered its proper timing and dosage should be mentioned in CPRS of hospital for further reference for line of treatment.
- There should be a protocol regarding administration of antibiotic so as to ensure administration in time.

Limitations Of Study:

- Inability to be present at the time of administration of antibiotic due to my presence in hospital for limited duration in a day due to which the exact time of administration could not be noted down.
- Dependency on hospital staff for receiving exact time of administration.

- All the patient could not be traced per day as various wards and departments were to be traversed for collecting data from patient records.
- Discrepancy in timings in few records.
- It could not be a longitudinal study due to time limitation during my summer internship, due to which an appropriate sample size was not included in study to make it more evidence based.
- Patient undergoing emergency surgeries were exempted from pre-operative prophylaxis in some cases.

Conclusion:

A study carried out on Antibiotic prophylaxis administration in a super speciality hospital suggest that there was lack of adherence to antibiotic administration guidelines; as many cases were not administered with antibiotic within 60 minutes of carrying out surgical procedure which puts patients on risk of developing secondary infections.

References

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ANNEXURE

Tool used for collecting data on antibiotic prophylaxis:

S. NO.	
Patient Name	
IP NO.	
Date	
Name Of Anaesthesiologist	
Name of Surgeon	
Antibiotic Administered (yes/no)	
If No Reason	
Type of Antibiotic Administered	
Route of Administration	
Time of administration (pre-op, post-op)	
Time of Surgery	
When it was administered	
Dosage	
Department of Admission	
Type of Surgery	
Name of Surgery	

Antibiotic Prophylaxis Checklist

S.no.	PATIENT NAME	SSN NO.	DATE	SOURCE OF DATA	NAME OF SURGEON	NAME OF ANAESTHESIOLOGIST	ANTIBIOTIC PROPHYLAXIS DONE	IF NO REASON	TYPE OF ANTIBIOTIC	ROUTE OF ADMINISTRATION	TIME OF ADMINISTRATION		TIME OF SURGERY	WHEN IT WAS ADMINISTERED	DOSAGE	Department	TYPE OF SURGERY EMERGENCY/ELECTIVE	Name Of Surgery	Time Between Pre-op
							YES/NO				Pre-op	Post-op		PRE-OP,POST-OP,INTRA-OP					and Post-op
1	1 Ram kumar gupta	219655	30-4-2016		Dr. Anuj Singhal		yes		Cefoperazone	IV	11:00			9:15 intra-op	2gm	ENT	Elective	B/L Fes	-1:45
2	2 G. C. Sahu	219644	30-4-2016		Dr.Ashish Vashishtha		yes		Cefuroxime	IV	10:22		22:00	12:40 pre-op	1.5gm	General Surgery	Elective	Fistula Ano with abscess	2:18
3	3 Govind yadav	219694	30-4-2016		Dr.Ashish Vashishtha		yes		Metronidazole	IV				post-op	500gm	General Surgery	Elective	Fistula Ano with abscess	0:40
									Cefuroxime	IV	14:00	10:00/22:00		14:40 pre-op	1.5gm				
4	4 Mahendra Singh	219290	30-4-2016		Dr. Sunil Choudhary		yes		Cefuroxime	IV	15:00		22:00	post-op	500mg	Plastic Surgery	Elective	ORIF Medial Mediollous	0:40
									Metronidazole	IV				post-op	1.5gm				
5	5 Yashvi Jha	219656	30-4-2016		Dr. Sunil Choudhary		yes		Cefuroxime	IV		10:00/22:00	10:00	15:40 pre-op	500mg	Plastic Surgery	Elective	Palate Recons	0:20
									Cefuroxime	IV	9:30			post-op	1.5gm				
									Cefuroxime	IV		10:00/22:00		9:50 pre-op	1.5gm				
									Cefpodoxime	IV		10:00/22:00		post-op	1gm				
6	6 Ms. Sylvia	147796	1/5/2016		Dr. Jayshree Sundar		yes		Cefuroxime	IV			10:00	1:40 post-op	250mg	Gynaecology	Emergency	NVD	1:40
7	7 Ms. Kusum	147804	1/5/2016		Dr. Meeta Sarkar				Cefuroxime	IV	10:30	10:00/22:00		11:05 pre-op	50ml	Gynaecology	Emergency	Cervical Circilage	0:35
									Cefopodoxime	IV				post-op	250mg				
8	8 Ms. Lokesh	147809	1/5/2016		Dr. Jayshree Sundar		yes		Cefoperazone	IV	7:30			7:30 pre-op	2gm	Gynaecology	Emergency	NVD	
9	9 Ms. Tanushree kohli	219754	2/5/2016		Dr. Jayshree Sundar		yes		Cefuroxime	oral		8:00/20:00		post-op	500mg				0:00
10		219754	2/5/2016		Dr. Pradeep Choubey	Dr. Laxmi	Yes		Cefoperazone	IV	11:40			12:10 pre-op	1gm	Minimal Access Surgery	Elective	Lap Gastric Bypass	0:30
									Amikacin	IV	11:40			pre-op	500mg				
									Cefoperazone	IV		10:00/22:00		post-op	1mg				
									Amikacin	IV		10:00/22:00		post-op	500mg				
	10 Mr. Sanjay Agarwal	219775	2/5/2016		Dr. Pradeep Choubey	Dr. Laxmi	yes		Cefoperazone	IV	9:00			9:10 pre-op	1gm	Minimal Access Surgery	Elective	Lap Gastric Bypass	0:10
									Cefoperazone	IV				post-op	1gm				
11	11 Mrs. Sudesh Sharma	219751	2/5/2016		Dr. Vivek marwah	Dr. Dinesh	YES		Cefuroxime	IV	12:00			12:00 pre-op	1.5gm	Minimal Access Surgery	Elective	Lap Myomectomy	0:00
									Amikacin	IV	12:00			pre-op	1gm				
									Trinidazole	IV	12:00			pre-op	500mg				
									Cefuroxime	IV		10:00/22:00		post-op	1.5gm				
									Amikacin	IV		10:00/22:00		post-op	1gm				
12	12 Mrs. Achala Thakur	219761	2/5/2016		Dr. Vivek Marwah	Dr. Laxmi	YES		Cefuroxime	IV	9:00			9:10 pre-op	1.5gm	Minimal Access Surgery	Elective	TLH	0:10
									Amikacin	IV	9:00			pre-op	1gm				
									Trinidazole	IV	9:00			pre-op	500mg				
									Cefuroxime	IV		10:00/22:00		post-op	1.5gm				
									Amikacin	IV		10:00/22:00		post-op	1gm				
13	13 Praveen Chandra	147729	2/5/2016		Dr. V. K. Jain	Dr. Kavita	Yes		Cefuroxime	IV	6:15			7:45 pre-op	1.5gm	Neurosurgery	Elective	Spinal Instrumentation	1:30
									Cefuroxime	IV		10:00/22:00		post-op	1.5gm				
14	14 Baby Lamar Mundessar	219824	2/5/2015		Dr. Anant Kumar	Dr. Alok	YES		Cefoperazone	IV	18:00			18:00 pre-op	300mg	Urology	Elective	Partial Nephrectomy	0:00
									Cefoperazone	IV		12:00/00:00		post-op	300mg				
15	15 Tripta Sagra	147776	2/5/2015		Dr. S. K. S. Marya	Dr. RT	yes		Cefoperazone	IV	8:15			8:15 pre-op	2gm	Orthopaedics	Elective		0:00
									Amikacin	IV	8:15			pre-op	500mg				
									Cefoperazone	IV		10:00/22:00		post-op	2gm				
									Amikacin	IV		10:00/22:00		post-op	500mg				
16	16 Ms. Saniya	147830	2/5/2015		Dr. Jayashree Sundar	Dr. Mehmood	yes		Cefoperazone	IV	4:00			4:30 pre-op	1gm	Gynaecology	Emergency	LSCS	0:30
									Cefoperazone	IV		10:00/22:00		post-op	1gm				
17	17 Ms. Kiran	147826	2/5/2016		Dr. Anuradha Kapur	Dr. Prenal	Yes		Cefoperazone	IV	14:45			14:45 pre-op	1gm	Gynaecology	Emergency	LSCS	0:00
									Cefoperazone	IV		6:00/14:00/22:00		post-op	1.5gm				
	Mr. Ashu Yadav	219787	2/5/2016		Dr. Puneet	Yes	Yes		Cefuroxime	IV	14:30			14:30 pre-op	1.5gm	Surgical Oncology	Elective	Hand Reconstruction	0:00
									Metronidazole	IV	14:30			pre-op	1gm				
									Amikacin	IV	14:30			pre-op	500mg				
	Ms. Suman Sachdeva	219789	2/5/2016		Dr. Avani	Dr. Puneet	Yes		Reflin	IV	8:35			8:35 pre-op	1gm	Onco Surgery	Elective	Tympanoplasty	0:00
									Cefotaxime	Oral		10:00/22:00		post-op	500mg				
	Mrs. Premida Langer	219826	2/5/2016		Dr. Harit Chaturvedi	Dr. Varun Gupta	Yes		Cefepime+Tazobactam	IV	13:30			14:10 pre-op	1.5gm	Onco Surgery	Elective	Microdochectomy Lt. Breast	0:40
									Cefotaxime	Oral		10:00/22:00		post-op	500mg				
	Mrs. Rashda Sultana	219802	2/5/2016		Dr. Harit Chaturvedi	Dr. Foteda	Yes		Cefepime+Tazobactam	IV	15:45			15:45 pre-op	1.5gm	Onco Surgery	Elective	Rt. Mastectomy	0:00
									Cefuroxime	Oral		10:00/22:00		post-op	500mg				
	Mr. Praveen Chandra Bafna	147729	2/5/2016		Dr. Rakesh	Dr. Sarika	Yes		Cefoperazone	IV	9:00			9:05 pre-op	1gm	Neurosurgery	Elective	Spinal Instrumentation	0:05
									Cefoperazone	IV		10:00/22:00		post-op	1.5gm				
									Linezolid	IV		10:00/22:00		post-op	600mg				
									Cefepime+Tazobactam	IV		10:00/22:00		post-op	2.25gm				
18	18 Usha Rani		3/5/2016		Dr. B.S. Walla	Dr. Kavita	Yes		Cefuroxime	IV	16:10			16:45 pre-op	1.5gm	Neurosurgery	Elective	Spinal Decompression	0:35
		147868							Amikacin	IV	16:10			pre-op	1gm				
									Cefuroxime	IV		6:00/14:00/22:00		post-op	1.5gm				
									Amikacin	IV		10:00/22:00		post-op	1gm				
19	19 Ademola Adebayo	147856	3/5/2016		Dr. Anant Kumar	Dr. Alok	yes		Cefoperazone+Sulbactam	IV	7:00			8:30 pre-op					

44 A.M. Khan	219981	4/5/2016	Dr. Harit Chaturvedi	Dr. A. Vats	Yes		Newfort-T	IV		10:00		10:40 pre-op	1.5gm	Surgical Oncology	Elective	Excision Of 7th Rib	0:40
Ms. Vinita Ojha	220034	4/5/2016	Dr. Jijina	Dr. Puneet	Yes		Newfort-T	IV		10:00/22:00		10:40 post-op	1.5gm				
Mr. Santosh Kumar Dixit	147919	4/5/2016	Dr. Balwinder Rana	Dr. Shameek	Yes		Refin	IV		9:10		9:25 pre-op	1gm	Surgical Oncology	Elective	Tympanomastoidectomy	0:15
							Refin	IV		10:00/22:00		post-op	1gm				
							Cefuroxime	IV		12:15		12:15 intra-op	1.5gm	Orthopaedics	Elective	Removal of Fixator	0:00
							Amikacin	IV				post-op	500mg				
							Cefotaxime	Oral		10:00/22:00		post-op	500mg				
45 Hira Devi	220054	4/5/2016	Dr. Harit chaturvedi	Dr. Wasim	Yes		Newfort-T	IV		16:00		15:35 intra-op	1.5gm	Surgical Oncology	Elective	Partial Glossectomy	0:25
							Newfort-T	IV		10:00/22:00		post-op	1.5gm				
46 Mrs. Naincy	147990	5/5/2016	Dr. Raj Tobin	Anaesthesia not needed	Yes		Cefoperazone	IV		1:00		4:00 pre-op	1gm	Gynaecology	Emergency	Epidural,NVD	3:00
47 Ms. Leena	148001	5/5/2016	Dr. Anuradha Kapur		Yes		Cefotaxime	IV		10:45		13:15 pre-op	500mg	Gynaecology	Emergency	LSCS	2:30
48 Mohd. Anwar Master	147972	5/5/2016	Dr. Anurag Krishna	Dr. Alok	Yes		Cefotaxime	IV		10:00/22:00		post-op	500mg				
							Amikacin	IV		6:00		8:25 pre-op	60mg	Pediatric	Elective	Hypospadias	2:25
							Cefuroxime	IV		6:00		pre-op	250mg				
49 Mr B.L. Mattoo	147895	5/5/2016	Dr. S.K.S. Marya	Dr. Mona K.	Yes		Cefuroxime	IV		10:00/22:00		post-op	250mg				
	147895	5/5/2016					Cefoperazone	IV		9:00		9:15 pre-op	2gm	Orthopaedics	Elective	Bilateral Knee Replacement	0:15
							Amikacin	IV		9:00		post-op	500mg				
							Cefoperazone	IV		10:00/22:00		post-op	2gm				
50 Ms. Subhadra	147928	5/5/2016	Dr. S.K.S Marya	Dr. Manish	Yes		Amikacin	IV		11:20		11:50 pre-op	500mg	Orthopaedics	Elective	Bilateral Knee Replacement	0:30
							Cefoperazone	IV		11:20		pre-op	2gm				
							Cefoperazone	IV		10:00/22:00		post-op	2gm				
							Amikacin	IV		10:00/22:00		post-op	500mg				
Ms. Kusum Lata	219650	5/5/2016	Dr.Pankaj Soni	Dr. Kuntal	Yes		Cefoperazone	IV		10:00		10:10	1.5gm	General Surgery	Elective	DJ Stenting	0:10
							Cefoperazone	IV		10:00/22:00		post-op	1.5gm				
51 Ms.Anju Mehta	219631	5/5/2016	Dr. Sunil Choudhary	Dr. Sujata	No	Not Required	not mentioned in record	IV		6:00		8:45 pre-op		Onco Surgery	Elective	Leg Reconstruction	2:45
52 Shakuntala Ghai	219688	5/5/2016	Dr. Harit Chaturvedi	Dr. Shameek	Yes		Cefuroxime	IV		10:00		9:55 pre-op	1.5gm	Onco Surgery	Elective	Chemoport Insertion	
53 Ms. Shakuntala Sharma	220087	5/5/2016	Dr. Kumud Raj	Dr. Chand	Yes		Cefuroxime	IV		10:00/22:00		post-op	1gm	Onco Surgery	Elective	AV Graft	0:05
							Cefuroxime	IV		10:00/22:00		post-op	1gm	Cardiology	Elective	Skin Flap CAT	0:00
54 Ms. Urmila devi	219384	6/5/2016	Dr. Sunil Choudhary	Dr. Majhi	Yes		Cefoperazone	IV		14:35		14:35 pre-op	2gm				
55 Ms. Geeta	220141	6/5/2016	Dr. R. Malhotra	Dr. Majhi	Yes		Cefuroxime	IV		8:00		8:40 pre-op	1.5gm	Cardiology	Elective	MVR+TV repair	0:40
							Amikacin	IV		8:00		pre-op	500mg				
							Cefuroxime	IV		10:00/22:00		post-op	1.5gm				
56 Ms. Ameerah Abdullahas	220269	6/5/2016	Dr. R. Malhotra	Dr. R. chand	Yes		Amikacin	IV		14:30		15:35 pre-op	3gm	Cardiology	Elective	Ascending Aorta Replacement	1:05
							Cefuroxime	IV		14:30		pre-op	1gm				
57 Mr. Vikalp Kumar Singh	220319	6/5/2016	Dr. Pradeep Choubey	Dr. Laxmi	Yes		Cefuroxime	IV		6:00/12:00/18:00/24:00		post-op	1.5gm	Minimal Access Surgery	Elective	Lap Chole	0:00
							Cefuroxime	IV		13:20		13:20 pre-op	1gm				
58 Anita Agarwal	148049	6/5/2016	Dr. Harit Chaturvedi	Dr. Gautam	Yes		Cefotaxime	IV		10:00/22:00		post-op	1gm				
59 Showkat Qari	220264	6/5/2016	Dr. Harit Chaturvedi	Dr. Sujata	Yes		Cefuroxime	IV		16:00		16:15 pre-op	1.5gm	Onco Surgery	Elective		0:15
							Cefuroxime	IV		10:00/22:00		post-op	1.5gm				
60 Uma Mittal	220258	6/5/2016	Dr. Harit Chaturvedi	Dr. Sujata	Yes		Newfort-T	IV		8:50		8:55 pre-op	1.5gm	onco surgery	Elective	Left 8th rib Excision	0:05
							Newfort-T	IV		10:00/22:00		post-op	1.5gm				
61 Rongon bhattacharjee	220300	6/5/2016	Dr. Manish agarwal	Dr. Varun	Yes		Cefepime+Tazobactam	IV		12:00		12:10 pre-op	1.5gm	onco surgery	Elective	Oophrectomy	0:10
							Cefepime+Tazobactam	IV		10:00/22:00		post-op	1.5gm				
							Amikacin	IV		11:30		11:40 pre-op	500mg	General Surgery	Elective	Rectal abscess	0:10
							Metronidazole	IV		11:30		pre-op	500mg				
							Ofloxacin	IV		11:30		pre-op	200mg				
							Amikacin	IV		10:00/22:00		post-op	500mg				
							Metronidazole	IV		6:00/14:00/22:00		post-op	500mg				
Asna Hasan	220203	6/5/2015	Dr. Manish Bajjal	Dr. Aparna	Yes		Ofloxacin	IV		8:50		9:00 pre-op	1.5gm	Minimal Access Surgery	Elective	Lap Chole	0:10
							Cefuroxime	IV		10:00/22:00		post-op	1.5gm				
Mr Vinod Anand	220230	6/5/2016	Dr. Pradeep Chowbey	Dr. Lakshmi	Yes		Cefotaxime	IV		11:15am		11:20 pre-op	500mg	Minimal Access Surgery	Elective	Lap Chole	0:05
							Cefuroxime	IV				post-op	1.5gm				
Ms. Nalini Dhingra	220308	6/5/2016	Dr. Pradeep Chowbey	Dr.Aparna	Yes		Cefuroxime	IV		14:30		14:45 pre-op	1.5gm	Minimal Access Surgery	Elective	Lap Chole	0:15
							Cefuroxime	IV		10:00/22:00		post-op	1.5gm				
Sujay Biswas	2202255	6/5/2016	Dr Harit Chaturvedi	Dr. Ashok Vats	Yes		cefepime+tazobactam	IV		9:30		9:50 pre-op	1.5gm	Surgery oncology	Elective	Lt. Mandibulectomy	0:20
							cefepime+tazobactam	IV		10:00/22:00		post-op	1.5gm				
62 Ms. Bhupinder Kaur	220337	7/5/2016	Dr. R. Malhotra	Dr. R. Chand	Yes		Cefuroxime	IV		9:50		10:40 pre-op	1.5gm	Cardiology	Elective	CABG	0:50
							Amikacin	IV		9:50		pre-op	500mg				
63 Baby Wardha Omar Adanan	220208	7/5/2016	Dr. Dagar	Dr. Bharunesh	Yes		Cefuroxime	IV		6:00/12:00/18:00/24:00		post-op	1.5gm				
							Amikacin	IV		10:00		post-op	500mg	Pediatric Cardiology	Elective	Repair of truncus arteriosis	0:50
							Cefoperazone	IV		9:30		10:20 pre-op	200mg				
							Amikacin	IV		9:30		pre-op	60mg				
							Fluconazole	IV		9:30		pre-op	20mg				
							Linezolin	IV		11:00/23:00		post-op	20mg				
							Cefoperazone	IV		6:00/14:00/22:00		post-op	200mg				
							Amikacin	IV		10:00		post-op	60mg				
							Fluconazole	IV		10:00		post-op	40mg				
64 Mr. Kuldeep Malhotra	220369	7/5/2016	Dr. Pradeep Choubey	Dr. Lakshmi	Yes		Vancomycin	IV		6:00/14:00/22:00		post-op	600mg	Minimal Access Surgery	Elective	Lap Chole	0:00
							Amikacin	IV		12:05		12:05 pre-op	1gm				
							Cefotaxime	IV		10:00/22:00		post-op	500mg				
65 Paritosh Bhadra	220136	7/5/2016	Dr. Durgatosh Pandey	Dr. Shamak	Yes		Cefepime+Tazobactam	IV		9:30		9:35 pre-op	1.5gm	Surgical Oncology	Elective	WIDE Excision of GIST of Gastric Fundus	0:05
							Piperacillin	IV		6:00/12:00/18:00/24:00		post-op	4.5gm				
Mr. Bidhan Sarkar	220343	7/5/2016	Dr. Ashish Vashishtha	Dr. Gautam	Yes		Cefuroxime	IV		14:00		14:00 pre-op	1.5gm	General surgery	Elective	Cystic Mass Excision	0:00
							Cefuroxime	IV		10:00/22:00		post-op	1.5gm				
Mrs. Sheraza Arshad	148064	7/5/2016	Dr. Dr. Rakesh Chandra	Dr. Mona Khanna	Yes		Cefuroxime	IV		8:15		8:30 pre-op	1.5gm	Orthopaedics	Elective	Arthroscopic Meniscectomy	0:15
							Amikacin	IV		8:15		pre-op	500mg				
							Cefuroxime	IV		10:00/22:00		post-op	1.5gm				
Mr. Vikas Meel	220308	7/5/2016	Dr. Sunil Choudhary	Dr. Ashok Vats	Yes		Amikacin	IV		9:45		10:00 pre-op	1.5gm	Plastic Surgery	Elective	Upper Lip Scar Revision	0:15
							Cefuroxime	IV				post-op	500mg				
Mr. Abhishek Pathak	220382	7/5/2016	Dr. Anant Kumar	Dr. Mona Khanna	Yes		Cefuroxime	Oral				post-op	625mg				
							Cefoperazone	IV		13:00		13:05 pre-op	2gm	Urology	Elective	Rt. URS	0:05
							Ofloxacin	Oral		10:00		post-op	400mg				
Ms. Bimla Agarwal	148088	7/5/2016	Dr. Kamal Durgja	Dr. Manish	Yes		Cefuroxime	IV		11:30		11:50 pre-op	1.5gm	Orthopaedics	Elective	Reconstruction of Achilles tendon	0:20
							Amikacin	IV		11:30		pre-op	500mg				
							Cefuroxime	IV		10:00/22:00		post-op	500mg				
Reebachan NA	220389	7/5/2016	Dr. Sanjay Sachdeva	Dr. Puneet	Yes		Cefazolin	IV		10:30		10:30 pre-op	1gm	ENT	Elective	Tympanoplasty	0:00
							Cefazolin	IV		10:00/22:00		post-op	1gm				
66 Ms. Ankita	148105	8/5/2016	Dr. Sonia Naik	Dr. kushal	Yes		Cefuroxime	IV		9:00		9:00 pre-op	1gm	Gynaecology	Emergency	LSCS	0:00
							Cefoperazone	IV		10:00/22:00		post-op	4.5gm				
67 Mr. M. k. Mathews	220278	11/5/2016	Dr. R. Malhotra	Dr. Majhi	Yes		Piperacillin	IV		9:00		9:30 pre-op	4.5gm	Cardiology	Elective	CABG	0:30
							Piperacillin	IV		6:00/12:00/18:00/24:00		post-op	600mg				
							Clindamycin	IV		6:00/14:00/22:00		post-op	1.5gm				
68 Mr. Saheb Lal	220653	11/5/2016	Dr. R. Malhotra	Dr. R. Chand	Yes		Cefuroxime	IV		8:00		9:20 pre-op	1gm	Cardiology	Elective	CABG	1:20
							Amikacin	IV		8:00		pre-op	1gm				
							Vancomycin	IV		8:00		pre-op	1.5gm				
							Cefuroxime	IV		6:00/14:00/22:00		post-op	750mg				
							Amikacin	IV				post-op	1gm				
69 Ms. Neha Naiyar	148260	11/5/2016	Dr. Jayashree Sundar	Dr. Sudesh	Yes		Cefoperazone	IV		2:00		3:10 pre-op	2gm	Gynaecology	Emergency	LSCS	1:10
							Cefoperazone	IV		10:00/22:00		post-op	500mg				
							Amikacin	IV				post-op	1gm				
70 Ms. Priyanka	148258	11/5/2016	Dr. Raj Tobin	Not in sheet	No	Not Required	Cefoperazone	IV		10:00/22:00		14:24 post-op	1.5gm	Gynaecology	Emergency</		

Ms. Hemlata Singh	148243	12/5/2016	Dr. S.K.S Marya	Dr. Mona	Yes	Cefuroxime	IV	10:00/22:00	post-op	1.5gm	Orthopaedics	Elective	Bilateral knee replacement	-1:50
						Amikacin	IV	10:00/22:00	post-op	500mg				
						Cefoperazone+sulbactam	IV	15:00	13:10 intra-op	1.5gm				
						Amikacin	IV	15:00	intra-op	500mg				
						Cefoperazone	IV	10:00/22:00	post-op	1.5gm				
Ms. Kusum Pruthi	148230	12/5/2016	Dr. S.K.S Marya	Dr. Raj Tobin	Yes	Amikacin	IV	10:00/22:00	post-op	500mg	Orthopaedics	Elective	Bilateral knee replacement	
						Cefoperazone	IV	8:15	8:20 pre-op	2gm				
						Amikacin	IV	8:15	pre-op	500mg				
						Cefoperazone	IV	10:00/22:00	post-op	1.5gm				
						Amikacin	IV	10:00/22:00	post-op	500mg				
Mast. Kunal Gothwal	220867	12/5/2016	Dr. sanjay sachdeva	Dr. Puneet	Yes	Cefazolin	IV	11:05	11:25 pre-op	800mg	ENT	Elective	Adenotonsillectomy	
						Cefazolin	IV	10:00/22:00	post-op	275mg				
						Cefazolin	IV	17:15	17:30 pre-op	1gm				
						Cefprozil	IV	10:00/22:00	post-op	500mg				
						Cefuroxime	IV	15:10	15:15 pre-op	1.5gm				
Mr.Mubarak Ali	220862	12/5/2016	Dr. Sanjay Sachdeva	Dr. Ashok Vats	Yes	Cefotaxime	IV	10:00/22:00	post-op	1.5gm	Minimal Access Surgery	Elective	Lap Chole	
						Cefoperazone	IV	12:00	12:15 pre-op	2gm				
						Cefoperazone	IV	10:00/22:00	post-op	2gm				
						Metronidazole	IV	6:00/14:00/22:00	post-op	500mg				
Ram Mohan Rao	220892	12/5/2016	Dr. Pradeep Chowbey	Dr. Dinesh	Yes						Urology	Elective	Robotic Radical Nephrectomy	
Mr. Ali Ashrafayee	220672	14/5/2016	Dr. Anant Kumar	Dr. Alok Gupta	Yes									
Mr. Emanuel	148461	14/5/2016	Dr. Ashish Vashishtha	Dr. Mona khanna	Yes	Piperacillin	IV	17:30	17:20 pre-op	4.5gm	General surgery	Emergency	Lap Duodenum perforation+ Lap Peritoneum	-0:10
						Metronidazole	IV	17:30	pre-op	500mg				
						Amikacin	IV	17:30	pre-op	750mg				
						Piperacillin	IV	6:00/14:00/22:00	post-op	4.5gm				
						Metronidazole	IV	6:00/14:00/22:00	post-op	500mg				
Mr. Pradeep pandey	221100	14/5/2016	Dr. Ashish vashishtha	Dr. Sanjay	Yes	Amikacin	IV	10:00/22:00	post-op	500mg	General surgery	Elective	Fistulectomy	
						Cefuroxime	IV	14:20	14:20 pre-op	1.5gm				
						Cefuroxime	IV	13:25	13:25 pre-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:45	10:50 pre-op	1gm				
Ms. Preeti Jain	221129	14/5/2015	Dr. Sanjay Sachdeva	Dr. Shameek	Yes	Cefotaxime	IV	10:00/22:00	post-op	500mg	ENT	Elective	Tympanomastoidectomy	
						Metronidazole	IV	20:20	3:20 pre-op	500mg				
						Ceftriaxone	IV	10:00/22:00	post-op	1gm				
						Cefuroxime	IV	8:25	8:25 pre-op	1.5gm				
						Amikacin	IV	8:25	pre-op	500mg				
Ms. Diana Baudieva	221099	14/5/2016	Dr. Sanjay Scachdeva	Dr. Shameek	Yes	Metronidazole	IV	10:00/22:00	post-op	1.5gm	Gynaecology	Emergency	Epidural	
						Cefuroxime	IV	8:25	8:25 pre-op	500mg				
						Amikacin	IV	10:00/22:00	post-op	500mg				
						Metronidazole	IV	6:00/14:00/22:00	post-op	500mg				
						Telcoplanin	IV	10:00	8:35 intra-op	400mg				
Ms. Babita	148562	17/5/2016	Dr. Raj Tobin	Dr. Gautam	Yes	Cefoperazone	IV	10:00	intra-op	2gm	Vascular Surgery	Elective	Vascular Repair	-1:25
						Amikacin	IV	10:00	post-op	400mg				
						Ticoplanin	IV	10:00	post-op	1gm				
						Cefuroxime	IV	8:30	10:55 pre-op	3gm				
						Levofloxacin	IV	8:30	pre-op	1gm				
Ms. Sonia	148557	17/5/2016	Dr. Raj Tobin	Dr. Alok Gupta	Yes	Cefuroxime	IV	10:00/22:00	post-op	1.5gm	Cardiology	Elective	CABG	
						Amikacin	IV	10:00/22:00	post-op	1gm				
						Cefuroxime	IV	9:00	9:00 pre-op	1.5gm				
						Amikacin	IV	9:00	pre-op	1gm				
						Cefuroxime	IV	10:00/22:00	post-op	1.5gm				
Mr. Ram Chandra	220944	17/5/2016	Dr. Kumud Rai	Dr. Rahul Dutta	Yes	Amikacin	IV	10:00/22:00	post-op	1gm	Cardiology	Elective	Minimally Invasive MVR	
						Cefoperazone+sulbactam	IV	10:00/22:00	post-op	1gm				
						Cefoperazone	IV	6:30	7:10 pre-op	1.5gm				
						Cefoperazone	IV	10:00/22:00	post-op	1.5gm				
						Cefoperazone	IV	18:10	18:10 pre-op	2gm				
Mr. Dinesh Mahendra	221311	17/5/2016	Dr. R. Malhotra	Dr. S. Manjhi	Yes	Cefotriaxone+sulbactam+EDTA	IV	10:00/22:00	post-op	1.5gm	Urology	Elective	Robotic Radical Nephrectomy	
						Cefoperazone	IV	8:25	8:30 pre-op	2gm				
						Amikacin	IV	8:25	pre-op	500mg				
						Cefoperazone	IV	10:00/22:00	post-op	2gm				
						Amikacin	IV	10:00/22:00	post-op	500mg				
Ms. Kalpana	221338	17/5/2016	Dr. R. malhotra	Dr. S. Manjhi	Yes	Cefepime+Tazobactam	IV	10:20	10:40 pre-op	1.5gm	Surgical Oncology	Elective	Chemoport Insertion	
						Cefepime+Tazobactam	IV	10:20	post-op	1.5gm				
						Cefazolin	IV	12:00	12:10 pre-op	1gm				
						Cefazolin	IV	10:00/22:00	post-op	500mg				
						Cefazolin	IV	10:15	10:15 pre-op	1gm				
Mr. Ram Gopal Niranjani	148546	17/5/2016	Dr. Anant Kumar	Dr. Shameek	Yes	Cefazolin	IV	10:00/22:00	post-op	1gm	ENT	Elective	Thyroidectomy	
						Cefazolin	IV	10:00/22:00	post-op	1gm				
						Cefazolin	IV	14:45	14:55 pre-op	1gm				
						Cefazolin	IV	10:00/22:00	post-op	1gm				
						Cefuroxime	IV	7:15	8:30 pre-op	1.5gm				
Dr. Maheshwari	148637	17/5/2016	Dr. Anant Kumar	Dr. Ashok Vats	Yes	Cefuroxime	IV	10:00/22:00	post-op	1.5gm	Cardiology	Elective	CABG	
						Amikacin	IV	10:00/22:00	post-op	500mg				
						Cefuroxime	IV	10:00	10:05 pre-op	1.5gm				
						Cefuroxime	IV	10:00/22:00	post-op	500mg				
						Cefoperazone	IV	6:00	9:20 pre-op	1gm				
Mr. Vijay Arora	148439	17/5/2016	Dr. S. K. S. Marya	Dr. Manish Singh	Yes	Cefoperazone	IV	10:00/22:00	post-op	1gm	General surgery	Elective	B/L TEP	
						Amikacin	IV	10:00/22:00	post-op	500mg				
						Cefuroxime	IV	9:30	9:30 pre-op	1.5gm				
						Metronidazole	IV	9:30	pre-op	500mg				
						Cefoperazone	IV	10:00/22:00	post-op	1.5gm				
Upinder Kaur	148474	17/5/2016	Dr. S.K.S. Marya	Dr. Sujata	Yes	Amikacin	IV	10:00/22:00	post-op	500mg	Minimal Access Surgery	Elective	Lap IPOM	
						Cefuroxime	IV	10:00/22:00	post-op	500mg				
						Amikacin	IV	14:00	16:40 pre-op	2gm				
						Cefoperazone	IV	14:00	pre-op	500mg				
						Cefoperazone	IV	10:00/22:00	post-op	2gm				
Ms. Madhu Chhabra	221296	17/5/2016	Dr. Rajesh Khullar	Dr. Lakshmi	Yes	Amikacin	IV	10:00/22:00	post-op	500mg	Minimal Access Surgery	Elective	Lap Chole	
						Cefuroxime	IV	9:30	9:30 pre-op	1.5gm				
						Metronidazole	IV	9:30	pre-op	500mg				
						Cefoperazone	IV	10:00/22:00	post-op	1.5gm				
						Amikacin	IV	10:00/22:00	post-op	500mg				
Mr. Amarjit Singh Samra	221362	17/5/2016	Dr. V. singh	Dr. K. patidar	Yes	Cefuroxime	IV	10:00/22:00	post-op	1.5gm	Surgical Oncology	Elective	Chestport Insertion	
						Cefepime+Tazobactam	IV	10:20	10:40 pre-op	1.5gm				
						Cefepime+Tazobactam	IV	10:20	post-op	1.5gm				
						Cefazolin	IV	12:00	12:10 pre-op	1gm				
						Cefazolin	IV	10:00/22:00	post-op	500mg				
Mr. Abdul Ali	221379	17/5/2016	Dr. Sanjay sachdeva	Dr. K. patidar	Yes	Cefazolin	IV	10:00/22:00	post-op	1gm	ENT	Elective	Stapedectomy	
						Cefazolin	IV	10:15	10:15 pre-op	1gm				
						Cefazolin	IV	10:00/22:00	post-op	1gm				
						Cefazolin	IV	14:45	14:55 pre-op	1gm				
						Cefazolin	IV	10:00/22:00	post-op	1gm				
Ms. Manju Devi	221378	17/5/2016	Dr. Sanjay Sachdeva	Dr. Puneet	Yes	Cefuroxime	IV	7:15	8:30 pre-op	1.5gm	ENT	Elective	Thyroidectomy	
						Cefuroxime	IV	10:00/22:00	post-op	1.5gm				
						Amikacin	IV	10:00/22:00	post-op	500mg				
						Cefuroxime	IV	10:00	10:05 pre-op	1.5gm				
						Cefuroxime	IV	10:00/22:00	post-op	500mg				
Mr. Abdul Jalil Khan	221507	18/5/2016	Dr. Manish Bajilal	Dr. Ahana	Yes	Cefoperazone	IV	6:00	9:20 pre-op	1gm	General surgery	Elective	B/L TEP	
						Amikacin	IV	12:00	12:10 pre-op	1.5gm				
						Cefuroxime	IV	12:00	pre-op	1gm				
						Cefuroxime	IV	10:00/22:00	post-op	1.5gm				
						Cefoperazone+sulbactam	IV	10:00/22:00	post-op	1.5gm				
Mr. Kallash Chand Singhal	221458	18/5/2016	Dr. Rajesh Khullar	Dr. Lakshmi	Yes	Cefoperazone+sulbactam	IV	13:15	13:00 intra-op	1.5gm	Urology	Elective	Kidney Receptient	-0:05
						Cefoperazone+sulbactam	IV	10:00/22:00	post-op	1.5gm				
						Cefoperazone	IV	17:30	17:10 intra-op	1.5gm				
						Ofloxacin	IV	17:30	intra-op	200mg				
						Cefoperazone+sulbactam	IV	10:00/22:00	post-op	1.5gm				
Ms. Rahnuma Jahan	221430	18/5/2016	Dr. Vivek Marwah	Dr. Lakshmi	Yes	Ofloxacin	IV	10:00/22:00	post-op	200mg	Urology	Elective	Bilateral RIRS Stenting	
						Amikacin	IV	15:00	15:05 pre-op	1gm				
						Cefoperazone+sulbactam	IV	10:00/22:00	post-op	2gm				
						Amikacin	IV	10:00/22:00	post-op	500mg				
						Cefuroxime	IV	12:55	pre-op	1.5gm				
Mr. Hari Prakash	148617	18/5/2016	Dr. Anant Kumar	Dr. Alok	Yes	Amikacin	IV	12:55	pre-op	500mg	Orthopaedics	Elective	Unilateral Knee Replacement	
						Cefuroxime	IV	10:00/22:00	post-op	1.5gm				
						Cefepime+Tazobactam	IV	11:45	11:55 pre-op	1.5gm				
						Cefepime+Tazobactam	IV	10:00/22:00	post-op	1.5gm				
						Cefepime+Tazobactam	IV	20:25	20:30 pre-op	1.5gm				
Mr. Younus khan	221494	18/5/2016	Dr. Arjit Man Singh	Dr. R. Manjhi	Yes	Cefazolin	IV	10:15	10:25 pre-op	800mg	Surgical Oncology	Elective	Excision of buccal mucosa	
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:15	10:25 pre-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	200mg				
						Cefazolin	IV	10:00/22:00	post-op	200mg				
Ms. Chitra Joshi	221447	18/5/2016	Dr. Abijit Dey	Dr. Mona K.	Yes	Cefazolin	IV	10:00/22:00	post-op	1.5gm	ENT	Elective	Adenoidectomy	
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
Ms. Uma Shankar	148522	18/5/2016	Dr. Rajiv Thakral	Name missing	Yes	Cefazolin	IV	10:00/22:00	post-op	1.5gm	Minimal Access Surgery	Elective	B/L TEP	
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
Mr. Narendra Singh Bohra	221439	18/5/2016	Dr. Harit Chaturvedi	Dr. Wasim	Yes	Cefazolin	IV	10:00/22:00	post-op	1.5gm	Surgical Oncology	Elective	Exploratory Laprotomy	
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
Devi Singh	221512	18/5/2016	Dr. B. Hazarka	Dr. Shameek	Yes	Cefazolin	IV	10:00/22:00	post-op	1.5gm	Surgical Oncology	Elective	Excision of buccal mucosa	
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
Mast Anyan Sharma	221494	18/5/2016	Dr. Arjit Man Singh	Dr. R. Manjhi	Yes	Cefazolin	IV	10:00/22:00	post-op	1.5gm	ENT	Elective	Adenoidectomy	
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
Mr. Satyendra Kumar	221542	18/5/2016	Dr. Karamveer	Dr. kushal	NO	Cefazolin	IV	10:00/22:00	post-op	1.5gm	Minimal Access Surgery	Elective	MAFT	
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
						Cefazolin	IV	10:00/22:00	post-op	1.5gm				
Ms. Neha	148704	19/5/2016	Dr. Jayashree Sundar	Dr. kushal	Yes	Cefazolin	IV	10:00/22:00	post-op					

