

**Internship
at
Santokba Durlabhji Memorial Hospital Cum Research Centre
Jaipur**

**Submitted By
Kriti Tambi**

**Post Graduate Diploma in Hospital & Health Management
2012-2014**


**Institute of Health Management Research,
Jaipur
2014**

INDEX

<u>S.NO</u>	<u>CONTENT</u>	<u>PAGE NO.</u>
1	List of Abbreviations	5
2	List of Graphs	6
3	List of Table	7
	Section A	
4	Introduction to hospital profile	8
5	Scope of services	9-10
6	Outpatient Department	11-15
7	Inpatient Department	16-38
	Section B	
9	Executive Summary	39-40
10	Background Overview	41-42
11	Problem Statement	43
12	Literature Overview	44
13	Conceptual Framework	45
14	Research question	46
15	Objectives	46
16	Methodology	47
17	Discussion	49-61
18	Limitation	62
19	Conclusion	62
19	References	63
20	Annexure	64-65
	Questionnaire	
	Medication Reporting Form	

ABBREVIATIONS

SDMH	-	Santokba Durlabhji Memorial Hospital
OPD	-	Outpatient Department
EMG	-	Electromyography
EEG	-	Electroencephalography
TMT	-	Tread Mill Test
2-D ECHO	-	2–dimensional Echocardiography
ECG	-	Electrocardiography
MRI	-	Magnetic Resonance Imaging
CT	-	Computed Tomography
TPA	-	Third Party Alliance
ECHS	-	Ex- service contributory health scheme
PRO	-	Public Relation Officer
ERCP	-	Endoscopic Retrograde Cholangio pancreatography
NCV	-	Nerve Conduction Velocity
BERA	-	Brain Evoke Response Audiometer
IPD	-	In Patient Department
ICU	-	Intensive Care Unit
FMEA	-	Failure Mode Effect Analysis
RCA	-	Root Cause Analysis
MMP	-	Medication Management Process
CPOE	-	Computerised Physician Order Entry
LASA	-	Look Alike Sound Alike
FM	-	Failure Mode
ADR	-	Adverse Drug Reaction
JCAHO	-	Joint Commission on Accreditation of Healthcare Organizations

<u>S.NO</u>	<u>LIST OF GRAPHS</u>	<u>PAGE NO</u>
1.	RPN of Failure Modes	53
2.	Rating of Failure Modes on Severity scale	54
3.	Rating of Failure Modes on Frequency scale	55
4.	Rating of Failure Modes on Detection Scale	56

S.NO	LIST OF TABLES	PAGE NO.
1.	Floor wise distribution of IPD	16
2.	Lab Equipment List	18
3.	List of test done	19
4.	Type of wards & bed strength	21
5.	List of equipments in wards	22
6.	Description of OT	23
7.	Equipment list for Operation theatre	24
8.	Wrist band color coding	24
9.	Security Timings	25
10.	No. & strength of critical care unit	25
11	Depicting the failure modes, its effects & RPN	51
12.	Severity Rating Scale	52
13.	Frequency Rating Scale	53
14.	Detection Rating Scale	54
15.	List of Abbreviations & Dose expression	60

SECTION A

1.0 HOSPITAL PROFILE

1.1 History

Santokba Durlabhji memorial hospital is a trust managed, autonomous, fee for service, not for profit, multidisciplinary, private hospital, which conceptualized by vulnerable family patriarch, the late Padamshri Khailshanker Durlabhji. He had passion and compassion to deliver affordable health-care to the people of rajas than which would be second to none in the country.

The hospital was established in 1971 and was inaugurated by late Smt. Indra Gandhi. It is located in the heart of pink city, spread over landscape 7.3 acres situated at Bhawani Singh road, Jaipur. It is self contained campus with staff residences, a bank, a post office, medical stores, diary booth, in patient attendant complex (dharamshala) and other living facilities.

1.2 Location and area

The hospital is spread over 90 acres of land on a prime location of Jaipur. This hospital is unique of its kind and it is also certified by ISO 900: 2000 with bed capacity of 450.

1.3 Catchment area

The catchment area is whole Jaipur city along with other parts of Rajasthan and other states like Haryana, UP and overseas nations.

1.4 Targeted population

The main targeted population is middle and upper middle class. It provides free services to terminally ill patients at Avedna Ashram. The camps are been organised throughout year in various districts of Rajasthan.

VISION

SDMH shall be an integrated quaternary healthcare hub for delivery of affordable quality medical care in an economically viable, regionally, nationally and internationally positioned institutional environment.

MISSION

The hospital cares. SDMH is committed to providing quality health care at the most affordable rates to all sections of society, irrespective of caste, creed or color. Towards making this possible, we pledge to dedicate all our efforts and all our energies.

QUALITY POLICY

With a view to establish a system of clinical excellence, patient centricity, service delivery and ethical practices, team SDMH, through adherence to establish standards of healthcare delivery; will apply medical science and technology in such a way so as to maximize benefits to health without concomitant risks.

2.0 SCOPE OF SERVICES

CLINICAL SERVICES

- Cardiology
- Cardiothoracic Surgery
- Dentistry
- Dermatology
- Dietetics and Nutrition
- ENT
- Executive health check up
- Gastroenterology
- Gastro Intestinal Surgery
- General Medicine
- General Surgery
- Nephrology
- Neurology
- Neuro Surgery
- Obstetrics and Gynecology
- Ophthalmology
- Orthopedics
- Pediatrics and Neonatology
- Pediatric surgery
- Pediatric Neurology
- Physiotherapy
- Plastic surgery
- Psychiatry
- Pulmonary Medicine (Chest & T.B)
- Rehabilitation
- Speech Therapy & Audiology
- Urology
- Vitreo Retinal

24-Hour Services

- Emergency Services
- Ambulance Services
- Pharmacy Services
- Laboratory Services and Imaging Services for IPD
- Blood Bank

Diagnostic Services

- X-ray
- Ultra Sonography
- Mammography
- Bone Mineral Densitometry
- CT Scan
- MRI
- Endoscopy
- Cardiac Catheterization Laboratory
- Neuro Diagnostic Labs like EEG, EMG, EV
- Audiometry & Speech Therapy Testing
- Cardiac Test includes:
 - Electrocardiogram
 - Echocardiography
 - Trans esophageal Echocardiography (TEE)
 - Holter Monitor
 - Stress Testing
- Pathology
- Including all pulmonary test e.g. Sleep Study Test

Utility services

- Dharmshala
- Avedna Ashram
- Union Bank and ATM facility
- Sarv Dharam Temple
- Utility Shops
- Book Shops
- Mobile Chargers
- Telephone Booth
- Post-office
- Cafeteria
- Salon
- Mortuary
- Diary

INTENSIVE CARE UNIT (ICU)

- Cardiac Medical-I
- Cardiac Medical – II
- Cardiac Surgical
- Medical ICU
- Neuro ICU

- Surgical ICU
- Paediatric ICU
- Neonatal ICU (IPU & PCU)

SERVICES NOT AVAILABLE

- Medico legal Cases (MLC)
- Burns Case when burns are >20%
- Organ Transplantation

OUT PATIENT DEPARTMENT

Outpatient department is defined as a part of the hospital with allotted physical facilities and medical and other staff in sufficient number with regularly scheduled hours, to provide care for patients who are not registered as in patient. The OPD facilities provide the main linkage of the hospital with the community.

Main purpose of OPD

Ambulatory medical care is provided to patient who are not confined to bed can be provided at a general practitioners clinic specialized clinic, a health centre or a hospital, which are part of a hospital such care is called outpatient care. This care is provided through the OPD'S for fabricating of good health to patients.

REGISTRATION

In order to avail the services offered at the hospital, the patient should be registered himself/herself at the main reception. The IPD registration is done round-the-clock and the form for the same is to be filled up and handed over at the counter itself. Please make sure that you provide accurate information in this form.

It is highly recommended to write your details as per legal documents to avoid inconvenience especially for medical reimbursement / LIC purpose. Please carry the OPD Registration card and patient file on every hospital visit. Your Unique Hospital Identification Number (UHID) is important to make sure that you receive timely services

OPD PROCESS FLOW

For New Patient

Patient comes at enquiry for consultation



The registration form is filled by the patient/attendant kept on enquiry counter.



Patient directed to OPD Reception counter for Registration.



All the demographic details entered in Hospital Information system by the receptionist.



Patient deposits consultation fees as per hospital policy.



Unique Identification Card is generated and issuing Registration card carrying unique identification no. for current and subsequent used.



Receptionist handovers the consultation file and card to the patient/attendant.



Patient is briefed about the consultant's chamber no. and respective floor.



The patient goes to the doctor's OPD with the file and gives the file to the Nursing staff posted in Consultant's chamber.



Nursing staff calls the patient with his/her name according to the submission of OPD file for consultation.



After Consultation OPD file is sent back to the reception after end of the day by nursing staff through the ward boy.



OPD file is collected and kept by receptionist with help of Housekeeping staff in the File shelf which is stored behind reception.

For Old Patient

Patient Comes at Reception with OPD Registration card (mention his/ her unique identification no.), which he has got at 1st visit.



After take the OPD Card, Receptionist withdraws the file from the OPD shelf which are arrange according to OPD No.



OPD Cards are given by patient/attendant to the Receptionist to take OPD file for consultation which is kept in OPD record.



If Consultation date within 5 days, give file to the patient without consultation charge for consult the consultant.



If Consultation dates more than 5 days, consultation charge receive by the receptionist and handover file to the patient/attendant for consult the consultant.



Patient takes the consultation file and goes to the Consultant's OPD and gives the file to the Nursing Staff.



Nursing Staff calls the patient with his/her name according to the submission of OPD file for consultation as per priority for consult to the consultant.



When patients has been seen by consultant, OPD file is being send to the Reception at the end of the OPD timing by Nursing Staff through the Ward boy.



Receptionist Collects the file and keeps it by serial no. in the File shelf which is behind the reception area.

Process flow if investigation required

Patient directed to concerned investigation counter.



Patient goes to the billing counter with required investigation slip/Consultant's prescription.



Required Investigation entered in hospital information system at the billing counter. Payment of investigation taken as per hospital policy



After the billing is done, the patient is sent to the concerned investigation department.



All Investigation reports are sent to the consultant's OPD.



If patient needs admission, patient/attendant goes to the IPD counter for admission.

INSURANCE CLAIM

PROCESS FLOW (For TPA Insurance claim)

Patient Comes at Enquiry for Consultation.



After consultation if there is a requirement of admission by Consultant, then the patient proceeds for admission



After admission patient goes to the TPA for Cashless facility



Insurance Issue Card checked by the department.



Policy related manual check by department.



Pre-authorization form filled by Consultant and department.



All Medical record copy and document sent by TPA Cell to the insurance company for claim.



Approval sends by insurance company for reimbursement to the hospital.



After receiving the approval, cashless process pass given to the patient.



Cheque is issued by insurance company to the hospital for clearance of all hospital's bills.



Cheque is deposited in hospital's account for clearance of Hospital bills.

CORPORATE ADMISSION

- Corporate clients are required to submit their company's credit letter on the date of admission. In case of emergency admissions, the credit letter has to be submitted within 12 hrs of admission.
- A letter is issued which states that the patient is deemed as a cash patient and an initial deposit is to be deposited. The same would be refunded

(at the time of discharge) against the submission of the company's credit letter.

- Patient opting for a room/bed category higher than their entitled category are required to pay the difference in charges arising thereafter. Charges for investigations, operation theatre charges, and the doctor's fees are subjected to change in accordance with the particular room category chosen.

CREDIT FACILITY

- Credit facility is offered only to the patient from Corporate & Insurance. TPA's having a tie up for patient covered under Medical Insurance, It is mandatory to get approval for cashless facility from TPA before patient gets admitted however if the patient gets admitted in emergency, then this approval for cashless facility must be produced before the discharge.
- In case there is a delay in authorization, patient authorization or denial of authorization from the insurance/TPA hospital cannot be held responsible & 100% of estimated cost or the difference cost to be deposited at the time of admission or before the surgery.

EXECUTIVE HEALTH CHECKUPS (EHC)

SDMH also provide preventive health care services in the form of executive health checkups .It includes different health packages for different group of people on reasonable charges like:

- Child health check-ups,
- Senior citizen health checkups,
- Well women health checkups (below 40 years & above 40 years),
- Executive health check ups
- Whole body health checkups
- Pre-employment health checkups, routine medical health checkups, diabetic health checkups, comprehensive cardiac health checkups etc.

IN PATIENT DEPARTMENT

In Door Patient Department caters the services for patients who require continues observation and supervision of experts, acute & intensive medical care and emergencies. In SDMH there is separate IPD Building which has four floors and a basement. Floor wise distribution is as follows:

Table 1 : Floor wise distribution of IPD

Basement	Administrative Block/Offices
	Laboratory services
	Library
	Radiology services
Ground floor	Enquiry
	Admission Counter
	Ambulance Enquiry
	Pharmacy Shop
	Emergency
	Security desk
	Billing counter
	Computer/IT lab
	Male private Ward
	Nurses sick Room
	Staff Sick Room
	General Deluxe Ward-3
	General Deluxe Ward-5
	Medical Intensive Care Unit
	Step Down ICU-1
First Floor	Female Private Ward
	Old Operation Theatre (Cardio. + Neuro.)
	Cath. Lab
	New Operation Theatre
	Surgical Critical Care Unit
	Medical Critical Care Unit-1
	Medical Critical Care Unit-2
	General Deluxe Ward-4
	New Private Room
Second Floor	Maternity Ward
	Labour Room
	Paediatric Intensive Care Unit
	Pre-mature Care Unit(PCU)/Neonatal ICU
	Labour Delivery Rooms
	Chairman Room
	Paediatric Ward
	Surgical ICU
	Transit Ward
	Urology Ward
	Super Deluxe Rooms
	Semi Deluxe Rooms
Third Floor	Dialysis Unit
	Nephrology Ward
	Orthopaedic Ward(KMO)-1
	Orthopaedic Ward(KMO)-2
	Terrance Operation Theatre
	Neuro-Science ICU
	Central Sterilization Room(CSR)
	Neuro Science ward
	General Deluxe Ward-1
	General Deluxe Ward-2

Fourth Floor	New Deluxe Rooms
	Colour Master Ward
	Convalescent Ward-Medicine
	Convalescent Ward-Gastro.
	Convalescent Ward-Surgery
	New Medicine Ward

Infrastructure of IPD Building:-

Connectivity of Floors

- **Lifts:** - There are total five lifts in the hospital building which has different capacity. Three of them have capacity of 15 persons at a time, one of them have capacity of 11 peoples at a time and remaining one has capacity of six persons at a time.
- **Stairs:** - There are two staircases to go up from ground floor and one staircase go on basement.
- **Ramp:** - There is one ramp from ground floor to other floors.
- **Foot Way/Connecting Bridge:**-There is ramp connectivity from OPD building to IPD building from first floor.

Fire Safety Equipments

There are various types of fire safety equipments in IPD & OPD building which includes:

- Water Neel Rope: - it is used in general fire.
- Foam Cylinders: - it is used to come up with electrical fire.
- Sprinkler System
- Smoke sensors
- Fire Alarms
- Emergency fire exits

Gas pipe lines

There are different colour pipe lines are there for different gases for Wards, ICU's and OT's.

- Yellow pipe with white band: oxygen line
- Yellow pipe with blue band: nitrous oxide line
- Yellow pipe with black band: Vacuum line
- Blue pipe with white band: Air line

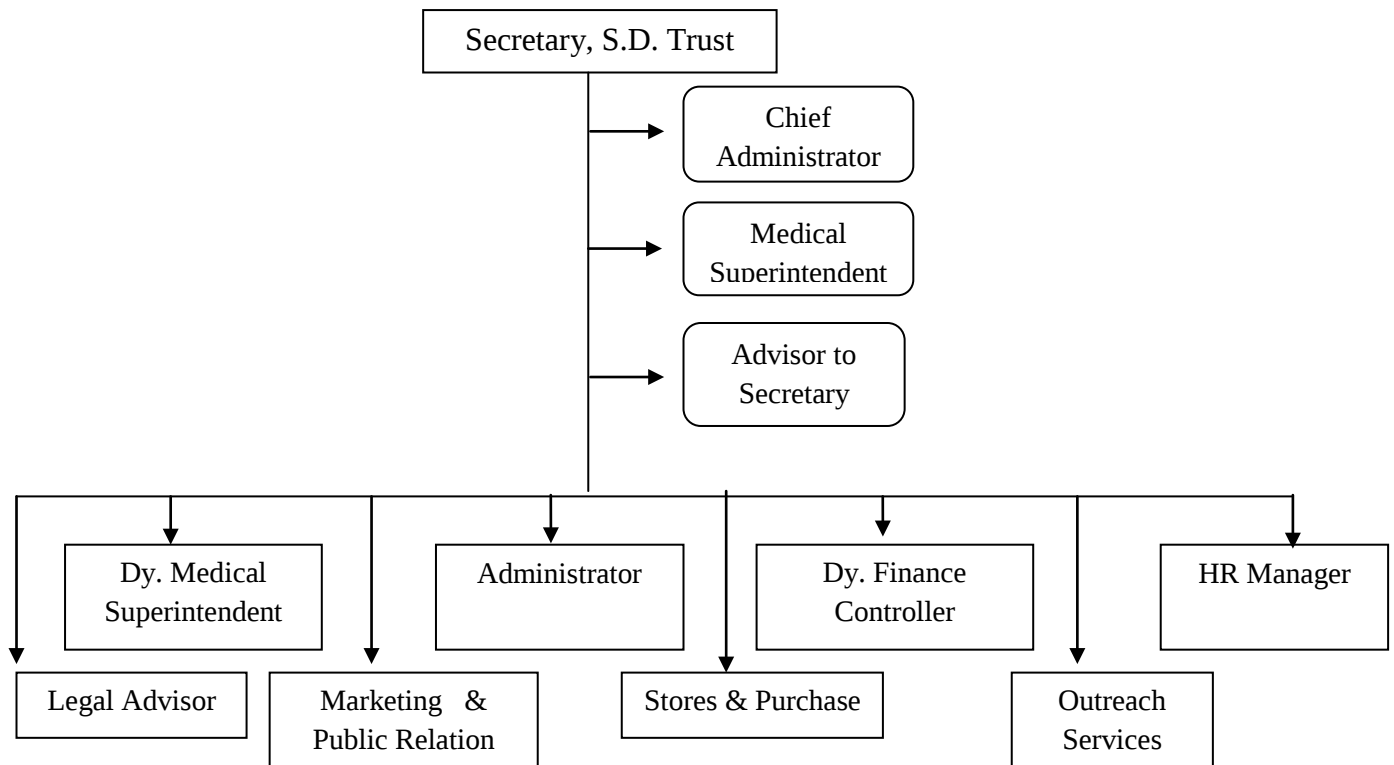
Waiting Area

Every ward and ICU have waiting area attached with them which has open space as well as some fixed chairs and attached washrooms.

Cafeterias

It is an outsourced service. Every floor has one cafeteria in waiting lounge which provides snacks, tea and coffee. Only one or two of whole building are opened 24*7 and rest of them are running from **Morning:** 6.00am to 11.00pm.

Administrative Block: The administrative block is located in the basement of IPD building. Their description as follows:



Library-The library is situated in the basement of the IPD building. It is fully Air conditioning. Timing of this is from 9.00Am to 7.00Pm. there is attached computer room for students and faculty that have internet facilities. There are various types of the medical books, international& national journals are there.

Radiology Services - Radiology services like Digital X-ray and Ultra-Sonography Rooms are available in the campus for IPD patients. The charges for these services are not collected cash here but it will be noted down on patient Charge Sheet which is with the patient's file and collected at accordingly at Bank or Admission counter. There are three X-ray rooms and two Sonography rooms for IPD patients.

Laboratory Services:-The laboratory services like Pathology, Biochemistry, Histopathology and Haematology are available here for both in and out patients. For in patients, samples which are collected in wards sent to lab with housekeeping staff and Bar codes are generated by LIS (Lab Information System). For outpatients, samples which are collected in OPD also taken for further process.

Table 2 : Lab Equipment list

N.	Biochemistry	Haematology	Histopathology	Microbiology
	Vitros 5,1 FS	TA-ART-4	Issue processor	ACTEC-9050
	Vitros-250dry chemistry	TA-Compact	Cytostate machine	Microplate ELISA reader
	Blood gas/electrolyte(B) bayer	smexXT-1800i	H meter	Vitros ECI
	(Bio red)D-10 (Glyco-Hb)	asmatic-20	Microscope	Vitros -3600
	Laser Nephelometer	initek-Advantus	Fluorescence microscope	itek-2 Compact
	Nephelometric Analyser(electralat)		TAT Spin Cytofuge2	ACTEC-9120
	ERBA-Chem-5 plusv2 (Semiautoanalyser)		Micro Embedding station	
	Genio-S		Microtome	
	Cardiac Marker Analyser		microwave	

Table 3: Lists of Tests done

N.	Department	Type of Tests
	Biochemistry	
	Harmones/Marker	
	Stool Examination	
	Haematology	
	Immunology(Serology)	
	Microbiology	
	Histopathology& Cytology	
	Blood Bank & Transfusion	
	Urine Analysis	

Marketing Services of hospital

There is no as such core marketing activities in hospital as hospital having its Brand name. It is regulated by a trust which is running on no profit strategy. Catchment area of hospital is Jaipur city, Jaipur Rural and adjoining districts like Sikar, Ajmer, Dausa, Jhunjhanu, Makrana and Narnol etc.

As a part of promotional activities some are there:

- Publication of Clinical Success Stories in News paper.
- Sports awareness campaign.
- Regular CME's (Continuous Medical Education).
- Rural Health Camps
- Public Awareness programmes.
- Free Medical facilities to International Airport at Sanganer, Jaipur.
- Organizing the Youth Soccer League (YSL).

Hospital has tie up with 40 of the corporate organization as well as various Government Agencies for regular health checkups and pre employment health checkups

Computer/IT Department

This department is situated at ground floor of the IPD Building. There are total 10 employees in IT department of hospital distribution of all as follows: -

- System Analyst
- Programmer
- Hardware engineer
- Operator

There are total 220 computers in hospital campus all are attached with a Client Server Architecture System which has data storage capacity of 260 GB.

There are four basic requirements for developing a programme/module for HMIS:-

1. Data Base: - Oracle as a data base is used in SDMH.
2. Operating System: - Windows 2003 operating system is used right now.
3. Hardware: - Client Server Architecture System of HP is used.
4. Language: - Visual basic language is used to develop programmes.

There is LAN connection which is Lease line of 5Mbps.

Human Resource Department

Human Resource Department is headed by HR manager who directly report to Chief Administrator. This department works from recruitment to retirement of an employee. There are total Approx 1200 employees in the hospital which includes Administrative Staff, Consultants, Residents, DNB Students, and Housekeeping & Security Staff.

There are three types of the employees in the hospital:

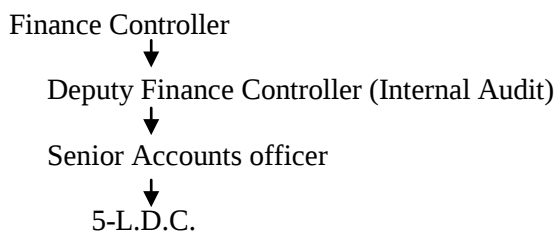
- Hospital Grade
- Wages
- Contractual man power

There is provision of (Policies of HR Department):

- Annual increment of approx.10-12% depending upon individual performance.
- Total 40 annual leaves along with leave encashment up to 20 leaves in special circumstances.
- Daily allowance which is refined twice a year once in April and then October.
- Exit interview by the next superior authority at the time of leaving the organisation.
- 360⁰ Performance appraisal of every employee at the end of financial year.
- Stipend to the DNB student

Finance Department

Finance Department is headed by Finance Controller and Deputy Finance Controller is directly reporting to Secretary to SDMH trust.



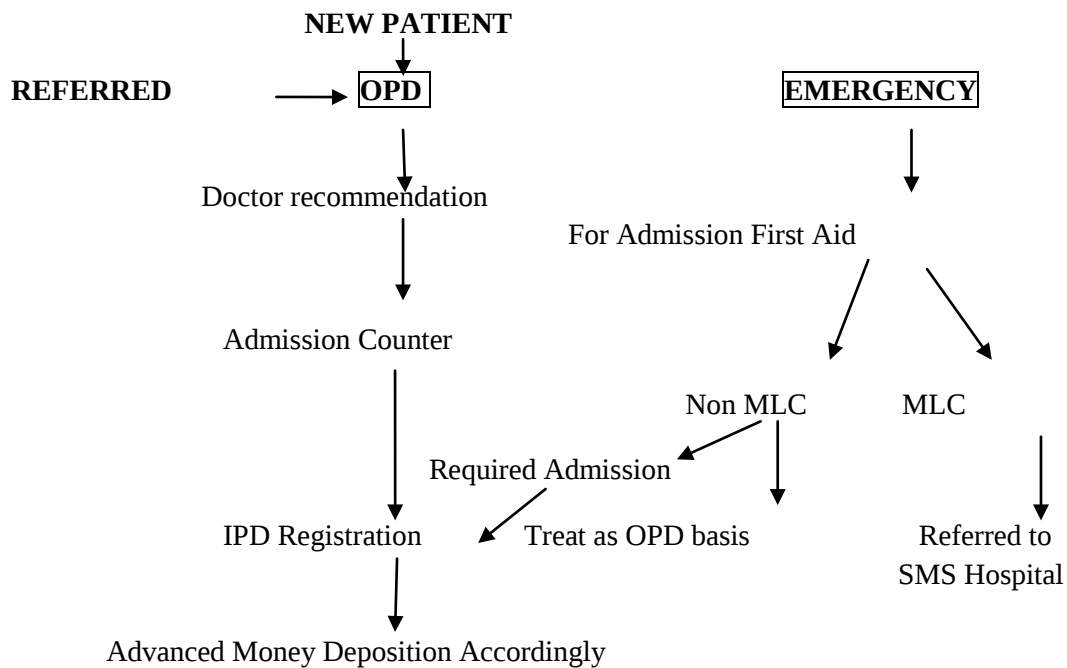
Duties of finance department to generate revenues minimize the costing of procedures, internal auditing the departments and arranging the external audit at the end of financial year.

There are two types of revenues in hospital that is medical like OPD, IPD, Investigations, Procedures and OT fees another is non medical like from MOU's, Outsourced departments and Rent.

Internal auditing is done to check the manipulations. There are various types of auditing in hospital that are as follows:-

- Cost audit like Per bed costing
- Man power audit
- Department audit
- Per day revenue audit
- Observational audit

Flow of Patient in IPD



DISCHARGE

- The discharge process is initiated only after the patient's consultant deems him/her fit for discharge.
- Discharge timing is before 12:00 p.m.
- In case a patient does not wish to continue his/her stay at the hospital, he can, in consultation with his doctor, ask for the Leave Against Medical Advice (LAMA)
- Before leaving, the patient's attendant needs to check his/her room carefully for any personal belongings, hospital is not liable for their belongings.
- To avail an ambulance/transport facility, the patient can put in a request at the nursing counter/ reception counter.
- When you are being discharged from the hospital, your doctor and nurse, dietician, pharmacies will explain the treatment plan which you should follow.
- For nutritional queries dietician can be consulted.

Table 4: Types of Wards and Bed Strength

Type of Ward	Bed Strength
General Ward	299
Private Ward	21
Deluxe	15
LDR	2
Critical Care Area	63
PICU	7
PCU	20
Trustee room	1
NSR	2
SSR	2
Total	432

Note: Avedna Ashram which caters services for terminally ill patient has 82 beds.

Equipment list of Wards

There are various types of equipments in wards which are listed in Table 6.

Table 5 : List of equipments

S.	CSSR Items	Cup Board Items	Trolley Items	Floating Items	Almeria Items	Emergency Tray
1	Scissors	B.P. Instruments	Tongue depressor	Motor with stone	Enema Can	E.T. Tube p.6.5,7,7.5,8,8.5
2	Suture Cutting Scissors	Stethoscopes	Ambu bag	Cool Jug	Hot Water Beg	Airway
3	Ophthal mic Scissors	Thermometers	Dyna – Plaster	Weight Machine	SS(Big)	Megaforcep
4	Bowl Set	Hammer	Laryngo Scopic Plate	Extension Board	Nebulisation machine	Ambubag
5	Dressing Set	Torch	Vaculain ce holder	Patient Trolley with Mattress	Pulse Oxy meter	Nasal prong
6	L.P. Tray	Inch Tape	Needle destroyer	O ₂ Cylinder	Syringe Pump	High Conc. Mask
7	Aspiratio Tray	Scale	Medicine ray	Wheel Chair	Drug Tray	Wenflone No. 20,18
8	Cut down Tray	Stapler	Plastic Kidney Tray	IV stand	Water Mattress	Torniquetes
9	Eye Tray	Tailor Scissor		Cardiac Table	Induction Plate	Suture 3.0,4.0
10	Cotton Roll ray	Glucometer		File Folder	Home Theater	Tegadern
11	Eye wab Tray	Stamp Pad		Suction Set	Injections	Zylocaine jelly
12	Catheter Tray	Micro Drip Set		Urinal	aryngoscope blade	Drip Set
13		Blood Set		Bed Pan	ECG Lead	Ring
14		3-Way		Stool Pan	O ₂ Cyllinder	Sterile Gloves
15		Wenflone p.22,20,18		Laundry Beg	Torch	Suction Set
16		Marker Pen		Plastic Box		T-piece
		Nasal Prong		Mug		Nebulization Mask

		Gluco Strips		Plastic Bucket		O ₂ mask
17		O ₂ Mask		Pillows		Medicine Box
18		Air Way		Height Scale		Rubber Suction
19		Folleys Catheter		Walkers		Micropore with Cutter
20		Uro Bag		ECG Machine		ET shelle
21		Paid O ₂ Mask & Drip Set		Medicine Box		
22		Doctors Seal		Laundry Items		
23		Surgical gloves		Patient Gown		
24		T-piece		Hand Towel		
25		Punching machine		Blanket		
26		Nebulisation Mask				
27		B-D Syringe				

Note: There is Nurse Call Systems for Private Rooms to cater better services in private rooms.

10.11 Discharge Process & Documentation:-

Discharge summary is made by consultant doctors

↓
Nursing staff completes the patient charge sheet

Transfer of charge sheet to billing counter

↓
Final Invoice handed over to attendant

Bill is deposited in Union Bank

Patient IPD file is signed by concern consultant & ICD-10 codes on file

Files are deposited in MRD

10.12 Cath. Lab

- Cath.lab is situated at first floor of IPD Building adjacent to Cardiac O.T. It is a certified Lab for Invasive Radiology.
- This is one of the oldest Cath.lab in Jaipur which installed before 40 years. It had renovated in 2009 with new Phillips equipments.
- Maintenance of this is seen by company persons in every 6 months.
- It has three rooms: Outer room is Computer room & Registration room; adjacent to this room is scrub & changing room; inner room is procedure room.
- Timing of Cath.lab is 9Am to 11Pm.in emergencies technician is called it off.
- Total no of staff is 10 in which two of were Cath. Lab technicians.
- Average 5-6 cases are coming per day in cath.lab.
- All consumables and emergency medicines requirement send by monthly indent to store in last week of every month and this will be delivered in first week of next month.

10.13 Operation Theatre

There are total five Operation Theatres in Hospital which has 11 Operation rooms.

Table 6: Description of O.T

O.T. Name	Total Nursing	Total Housekeeping	O.T. Room	Type of Surgery performed	No. of Surgeries performed per
-----------	---------------	--------------------	-----------	---------------------------	--------------------------------

	Staff	staff	p.		onth
Old O.T.			Old O.T.-	Cardiac Surgeries	
			Old O.T.-	Neuro-Surgeries	
New O.T.			New O.T.-	Gynaecology Surgeries	
			New O.T.-		
			New O.T.-		
Terrance T.	20	13	Terrance T.-1	Infected Surgeries including Gen.& Ortho	
			Terrance T.-2		
			Terrance T.-3	Clean General & Ortho.Surgeries	
			Steel O.T.	Joint Replacement Surgeries	
Urology T.			Urology T.-1	Urology-surgeries	
Eye O.T.			Eye O.T.-	Ophthalmology Surgeries	

Table 7: Equipment list for Operation Theatre

S.N.	Cardiac OT	General surgery OT	Joint Replacement (Steel) OT	Urology OT	Neurosurgery OT	Eye OT
1	OT Table	OT Table	OT Table	OT Table	OT Table	OT Table
2	OT Light	OT Light	OT Light	OT Light	OT Light	OT Light
3	Cautry Machine	Cautry Machine	Cautry Machine	Cautry Machine	Cautry Machine	Cautry Machine
4	Multipara Monitor	Multipara Monitor	Multipara Monitor	Suction Machine	Multipara Monitor	Multipara Monitor
5	Monitor Arterial	Pulse Oxy meter	Automatic Tourniquet System	Pulse Oxy Meter	Colour Video Printer	Pulse Oxy meter
6	Heart Lung Machine	Electronic Endoflator	C-Arm	C-Arm	C-Arm	Micro diathermy
7	Anaesthesia Ventilator	Anaesthesia Ventilator	Anaesthesia Ventilator	Anaesthesia Ventilator	Anaesthesia Ventilator	Anaesthesia Ventilator
8	Boyles Apparatus	Boyles Apparatus	Camera	Boyles Apparatus	Camera	Boyles Apparatus
9	Anaesthesia Workstation	Anaesthesia Workstation	Cutter Control Knee Joint	Lithotripter	VCR	Phaco emulsifier
10	Steam Sterlizer	Camera	Steam Sterlizer	MPM	Operating Microscope	Operating Microscope
11	Light Source	Light Source	Light Source	Light Source	Light Source	Cold Light Source
12	Air Purifier	ESU	Fluid Warmer		Air Purifier	Cryo Machine
13	Defibrillator	Unidrive GYN	Body Warmer			Virectomy
14	Haemotherm-CSZ	Harmonic Scalpel				ENT Micro motor

15	ACT-Machine	ATS			Drill Machine	ENT drill
16	Sternal Saw Cutter	Tourniquets				
17	Syringe Pump	Syringe Pump				
18	Steel Wire Cutter	Xenon Light Source 300W				
19	TEE Probe	30 ⁰ HD Endoscope				
20	Cardio Plesia Monitor					

10.14 Wrist Band Colour Coding:

A band is tied on patient wrist which has general information of patient like patient name, IPD no., ward name in which patient admitted and date of admission. This is tied only for following admitted patients:

Table 8: Wrist Band Color Coding

Blue	Surgical Patient (Patient Going for any Surgery)
Pink	Newly born baby and delivered mother
Orange	Vulnerable patients (65years>Patient Age< 14years)

“Nanhi Chaan”:- Save the Girl Child Campaign

Every mother who had delivered girl child has given a small plant (Tulsi,) at the time of discharge. The concept behind this is to care that plant as their child.

Outside labor room blue balloon for newly delivered male child while pink balloon for newly delivered female child.

10.15 Security

Security Service of SDMH IPD building is outsourced. The contract is renewed every year. There are three duty rosters of security persons which as follows:

Table 9: Security Timings

Shift	Timing	No. of Security guards
Morning	6.00Am to 2.00Pm	18
Evening	2.00Pm to 10.00Pm	10
Night	10.00Pm to 6.00Am	7

There are total 35 security guards in IPD building amongst which maximum of them are present during the morning shift because of maximum no. of visitors are in morning hours and minimum no is required during night time .

Every patient is provided single attendant pass during admission. Only for neurological cases or special recommendation by concerning consultant the extra attendant pass is provided to the patient with extra payment of 100 Rs at admission counter in which 90Rs is refundable at the time of discharge.

10.16 Critical Care Area

There are total 63 beds in critical care areas of the hospital. The occupancy is much higher in that area of hospital which is approximately 95%. Distribution of critical care area has given below:-

Table 10: No & strength of critical care unit

Name of ICU	Bed Strength	
Step Down ICU-1	11	It also known as High Dependency Unit (HDU).
Medical Critical Care Unit-1	10	It also known as Step Down ICU-2.
Medical Critical Care Unit-2	10	
Surgical Critical Care Unit	7	It caters the services for cardiac surgery patients.
Paediatric Intensive Care Unit	7	
Surgical Intensive Care Unit	8	
Neuro-Science Intensive Care Unit	10	

Equipment List of ICU

- Multipara Monitor
- Defibrillator
- ECG Machine
- Syringe Pump
- IABP
- Blood Storage Cabinet
- Temp. Pacemaker
- Ventilator
- Bi PAP
- Patient Blanket
- Pulse Oxy meter

There are Specific equipments that required in Neonatal and paediatric ICU as follows:

- Radiant Heat Warmer
- Digital Weighting Scale
- Nebulizer
- Infant Ventilator
- Incubator

10.17 Emergency

Department of Emergency is located at ground floor of IPD building. It caters 24*7 services. Patient coming at emergency required to deposit Rs.200 as file charge or registration charge at admission counter. From there patient get their unique identity no.

There are three duty rosters in each shift with one doctor and three staff nurse. In emergency doctors are ACLS/BLS certified. Training for this conducted by hospital time to time.

There are four beds in emergency normally 30-35 patients visit per day in this department. Frequently coming emergencies are fall injuries, Cardiac emergencies and poisonous intake etc.

There is minor OT in emergency department for suturing and other minor procedures. In minor OT there is an OT table, High Mask Light and Emergency Medicines are there.

List of Equipment in Emergency Department

- Crash cart
- Defibrillator

- ECG Machine
- Pulse Oxy meter
- Suction

10.18 Ambulance Services

There are total 8 ambulances in SDMH. Two of them are critical care ambulances amongst which one is fully equipped with life saving equipments like ventilator, defibrillator, O₂ cylinder, and emergency medicine...etc one of them are donated by State Bank of Bikaner & Jaipur.

10.19 Hospital Management Information System

The hospital has own management information system. It covers the following arena.

- Blood Bank management Information System
- IPD Management Information System
- Medical Record Management Information System
- OPD management Information System
- Operation Theatre Utilization information System
- Pay Roll information System
- Pharmacy Retail Chain Management Information System
- Ward Management Information System
- Lab information System

10.20 Central Sterilization Room

- It caters the services for Wards and ICU etc.
- Separate autoclave is present in OT's.
- Autoclave machine and ETO is present for sterilization.
- There is separate entry and exit door in CSR.
- Replacement system is been followed.
- Bow dick's test is done to check the sterilization.
- Human resources: total no of staff is four in which two are trained in sterilization procedures.
- The items are packed before coming to CSR to prevent mixing of items.
- Sterilized items were issued for ward at particular time in morning between 7.30Am to 7.45Am and in Evening between 2.30Pm to 3.00Pm.

10.21 Dietary Services

- Dietary services of hospital are on contract basis which is renewed every year. For IPD patients' contractor has payee by hospital on per plate basis.
- A dietician is appointed by hospital to prepare the diet schedule of every patient according their requirement. Dietician takes round on every morning and take note on the patient required diet.
- Diet charges are included in Bed/Room/Ward charges .Normally 5 meals are given to the patients in wards while in private rooms 7 meals are given to the patient.
- There are different diets for patients with Diabetes Mellitus, Hypertension, Renal disease or cardiac disease.
- Food trolleys temperature is kept at 50 degree Celsius.
- Weekly scheduling of diet is done by hospital appointed dietician as well as canteen own employed dietician. In absence of hospital dietician canteen employed dietician has to work.
- There is a separate arrangement of food preparation for patient which require more hygiene and for attendants.

10. OTHER SERVICES

11.1 AVEDNA ASHRAM

It is a charitable based hospice of 82 beds, where it provides a home for patients with terminal illness. It provides free shelter, food and care to terminally ill patients mainly suffering from cancer and pelagic patients of Rajasthan and neighbouring states.

Human Resources

- 4 Volunteering Nuns + 1 Nursing Aid + 1 Ward Boy

Avedna Ashram comprises of three floor comprising of:

1st Floor

- Female ward- 21 Beds
- Male ward- 21 Beds
- Central ward- 10 Beds

2nd Floor

- Male private rooms- 9 rooms- 11 Beds
- Female private rooms- 7 rooms- 9 Beds
- Central ward- 10 Beds
- 1 Common TV Room

3rd Floor

- Coordinator Room
- Staff staying room
- Trustee Member Meeting Hall
- Prayer Room

Services

- Free palliative, medical and nursing care to terminally ill cancer patients with free boarding and lodging.
- Ostectomy care services.

11.2 ANANTH BHANDHARI DAY CARE CENTRE

It mainly looks after the spiritual, academic, intellectual and creative needs of the senior citizens through yoga, medication, music, reading lectures etc. They also provided with subsidized lunch and free tea and snacks.

Services

- Care of body, mind and soul through religious prayers and programmers etc.
- Common prayer room is provided for patients in Avedna Ashram and senior citizens at day care centre.

11.3 MORTUARY

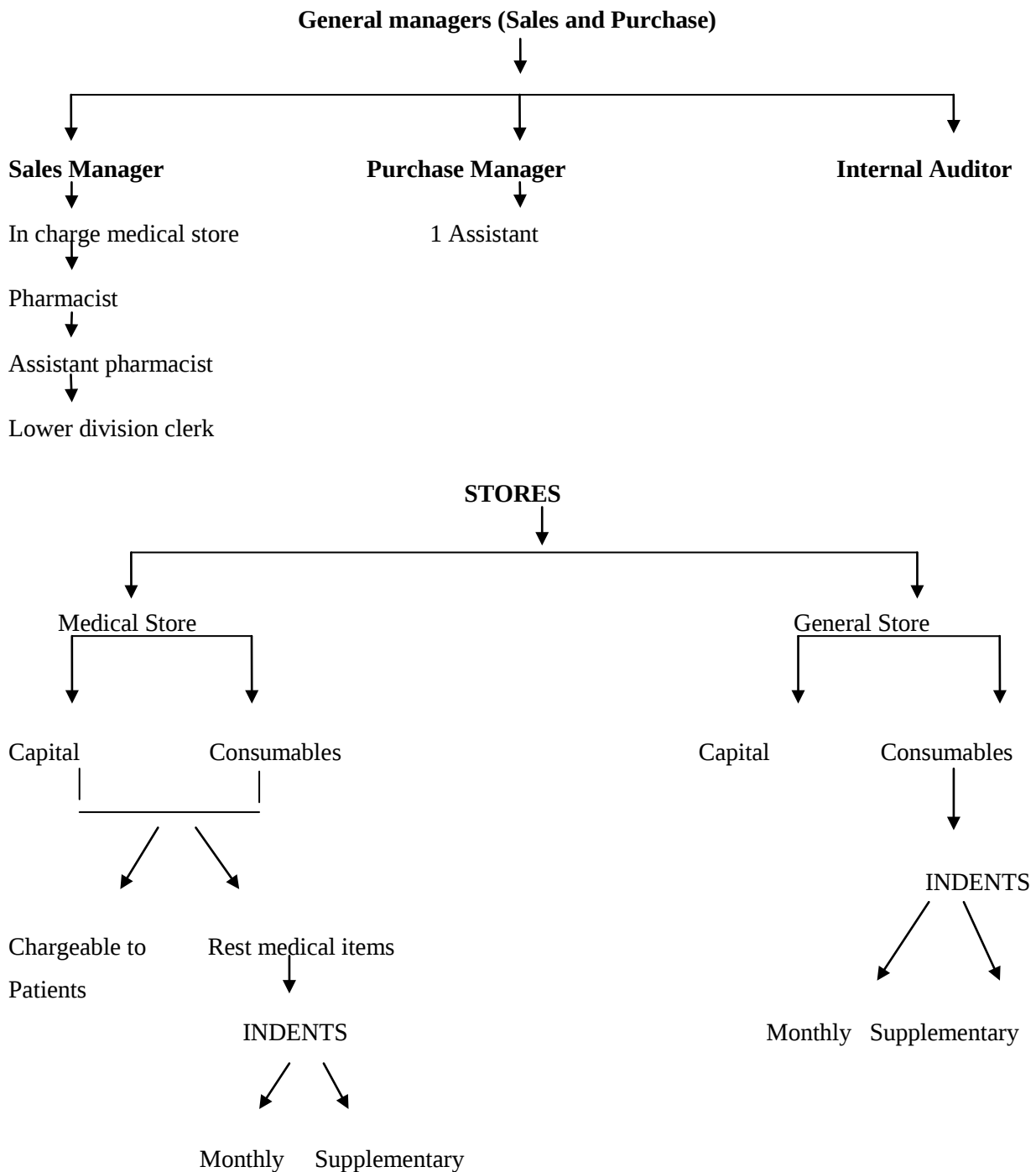
It is one of the support services of a hospital. Here the dead bodies of patients who die in the hospital are kept. They are kept either due to delay in their funeral or due to any medico legal reasons.

It is located in the basement of Avedna Ashram. A single insulated room where dead body is kept in the room. At a time 3 dead bodies can be kept in the room.

- Last rites services according to written request of the patients.
- AC mortuary services.

11.4 STORES & PURCHASES

This department is primarily responsible for inviting quotations, negotiating, purchasing and issuing desirable medical /general, capital/consumables to various departments of hospital.



11.4.1 Process of procuring Capital Items for new items:

It includes both medical and general capital items-

Step 1- Order is received from respective department during the specific period i.e. beginning of calendar year.

Step 2- Quotations are being invited on the above requirement.

Step 3-All the quotation are shown to the head of the department as per there requirement.

Step 4- Items are purchased as per the head's direction.

Step 5- After the procurement items are send directly to the respective department.

Step 6- After the assurance of the item up to the mark, payment is being made by accounts departments.

Important points:

- List of new items to be procured is being made at the beginning of the financial year
- Purchase department can take decision regarding capital items of up to Rs. 20,000 only i.e. controller of stores.
- Further the capital purchase of more than Rs. 20,000 the decision is being taken by capital purchase committee.
- Advisor to secretary is head of this department.

11.4.2 Process for Replacement of capital items:

If a equipment is a replacements then,

Step 1- department fills the breakage form

Step 2- the form is been send to MS.

Step 3- MS further directs the BMW and engineer service department to check and verify the request.

Step 4- on the above approval the new equipment is been ordered in a planned mannered.

Important point

- Medical equipments – bio medical workshop
- Other all equipments- engineering service department

11.4.3 Process involved in obtaining and supplying consumables

Consumables are supplied to every department through indents. These indents are of two types monthly and supplementary. This is applicable for both medical and general consumables.

11.4.4 Monthly Indents

- Every department send their requirement in specific format i.e. monthly indent.
- The indents are being filled and send between 25th to last date of each month.
- On the basis of indents collected order of each department is being placed.
- The indents are been supplied to respective departments in first week of next month according to allotted dates.

11.4.5 Supplementary indents

In certain cases, if monthly indents fall short for any department then they send supplementary indent which includes the name and quantity of indent.

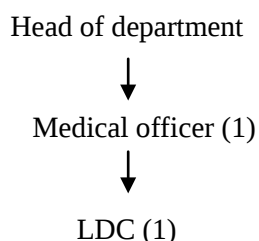
Important point:

- There is list of standard indent according to respective department per bed. The quantity always remains fixed only price varies. This indent helps in keeping a control check on the consumption of consumables per bed in each ward.

11.5 MEDICAL RECORD ROOM

The key functions of the department are:

- To keep the record of IPD patients and discharges from the hospital
- To maintain the IPD records of deaths
- To provide the records whenever requested as per the law and also to dispose of the old records according to the law.
- Bills verification for the government employees.

Human resources**Equipments**

Computer

Physical facility

Rooms available

Activity flow**(a) IPD Records**

Patients discharge → Filling up charge sheet → Nurse enter it in ward register → Files comes to MRD → Entry in computer/ manually in register → Arranging file according to serial number.

(b) To get the file (Patients/ Attendant)

Application to MS → On approval of application → Photocopy of file is handed over

(c) For disposing of records

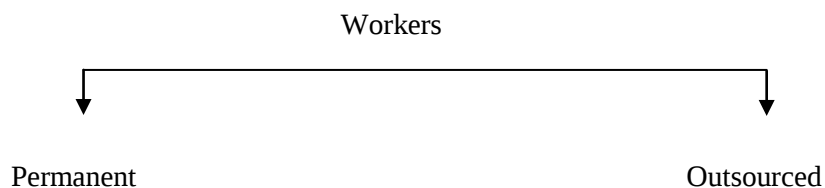
Report committee meeting is called and order is passed on the basis of unanimous decision of this committee.
For disposal of records laws has to be followed

Important points

- Birth and death records are available here from the year 1971- till date.
- Discharge records for
- Report committee comprises of MS, legal advisor and doctor.
- Insurance company has to pay Rs 500 for obtaining records of a patients
- SDMH has also municipality computer and employee for issuing birth and death certificate.

11.6 HOUSEKEEPING

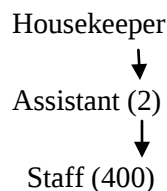
It is the in house department with a working staff of 400 and if and when required workers are outsourced.



Key functions

- To ensure the cleanliness of the hospital.
- To get cloths from wards to the laundry and make an entry and supply it back to wards.
- To make arrangement for various other function, conferences and camps.
- To collect the post and distribute it.

Human resources



Note: Staff includes sweepers, ward boys, ward ladies and drivers

11.7 MAINTENANCE DEPARTMENT

The maintenance department mainly includes workshop of:

- Carpenter
- Painter
- Mechanical
- Plumber

Human Resources

The total no of employees working in the department are 22.

- Maintenance: 4
- Carpenter: 4
- Painter :4
- Mechanical:6
- Plumber:4

Activity flow

Receive complain from respective department → Handed over to Maintenance supervisor → complaint is handed over to respective workshop for repair/Maintenance/construction → first line of repair/ maintenance is done by maintenance staff, if not then send it outside.

11.8 BIO MEDICAL ENGINEERING (BME) DEPARTMENT

Key functions

The main functions of the department are as follows:

- First line of repair and maintain all the Bio Medical Equipments of the hospital.
- Inventory management of instruments.
- Medical gas room maintenance

For maintenance of equipment in OT, ICU and wards AMC and CMC are given.

Human resource

Bio Medical Equipment- 1 Assistant → 1 Technician

Medical Gas Room- 3Staff member/ 1 Reliever

Equipments

All basic and necessary tools related to their work.

Activity flow

Receive complain from department → estimate the budget for repair and followed by comment of the respective doctor → Handed over to GM, Purchase → DMS → MS → Parcel is send to company workshop for repair → receive the parcel from company → functioning of equipment is checked by respective doctor → if satisfactory, payment is done.

11.9 ELECTRICITY DEPARTMENT

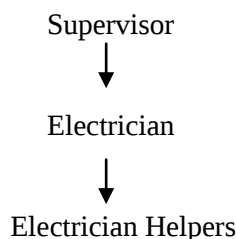
The main function of electricity workshop department is as follows:

- Electricity supply including emergency supply.
- Maintenance of AC and air cooling.
- Maintenance of central suction

- OT cautery wire
- Maintenance of hydraulic table- OT
- Oxygen pipelines
- Maintenance of centrally dry air compression
- Soft water processor

Resources available

➤ **Human resources**



➤ **Duties**

• **Roaster**

- Mainly deals with the maintenance part of instruments
- Functional 24*7

• **Workshop**

- It mainly deals with the maintenance part of heavy instruments like vacuums
- Functional for 8 hours daily

➤ **Equipments**

- Generators AC plants
- Digi sets Air compressor
- UPS (Uninterrupted Power Supply) Ducting system

11.10 BANK

- The hospital has a branch of a Union Bank as well as Bank's ATM inside the hospital campus.
- There is a direct transaction of monthly salary of hospital staff from hospital accounts section to the employee bank account.

11.11 POST OFFICE

- Post office SDMH branch is present inside the hospital campus.

11.12 IN PATIENT ATTENDANT (IPA) BLOCK

- It is a 50 bedded dharamshala providing accommodation facility for the attendants of the IPD patients.

11.13 CRECHE

- Extended services in the form of crèche i.e. room with a pantry is present inside the hospital campus.

- It is mainly for the staff's children under 5 years of age.
- 4 helping staff is hired to take care of toddlers.

11.14 RECREATIONAL ROOM

- Keeping in mind the health of the resident doctors and staff quarter's a recreation room namely GYM is present.
- It is open during morning and evening time.

11.15 LAUNDRY

- The laundry services in SDMH are outsourced and the contract is renewed annually.
- The cost per cloth is pre decided and monthly the payment is done on those bases.

Human Resources

Total – 10 workers

Equipments

- 3 Machines are soaking the soiled and untainted linen.
- 3 Washing machines are present for washing purposing.
- 3 Blow dryer machines are present to dry the linen.
- 1 roller for ironing is present.

11.16 BIO MEDICAL WASTE

This department is outsourced by the hospital. The waste is collected on the bases of colour coding which is as follows:

Blue: Glass, needle syringes and solid waste

Black: Municipality waste

Red: solid waste, plastic bags, mouth mask and head caps

Yellow: Cotton, gauze pieces etc

Important Points

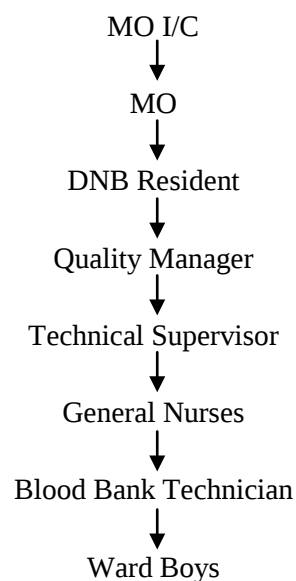
- The waste is been collected in the morning and further the waste is been taken by the contractor on the basis of weight.
- There is a separate exist of the waste to be disposed off.

- Currently the sewerage plant is under construction which will help in treating the contaminated water and further using it for additional purpose.
- There are 3 water harvesting system present inside the hospital campus, help in maintaining the water level and further used for gardening, washing and cleaning.

11.17 BLOOD BANK

The blood bank of SDMH was established in 1973, initially designed to meet the needs of in-house SDMH patients, but later converted to a state of the art multi-component blood bank and transfusion service by 2003. It is regulated by “Drug and Cosmetic Act”.

Human resources



STAFFING

These many above personnel are mandatory according to the act. Other than the minimum obligation, personnel available

- Medical Social Worker
- Accountant
- Store I/C
- Computer Programmer
- Helper

FACILITIES AND SERVICES

Names of component

- Whole blood
- Paediatric/ Divided RBC units
- Red Cell Concentrate
- Fresh Frozen Plasma

- Platelet Concentrate
- Old Frozen Plasma
- Single Donor Platelet concentrate
- Cryoprecipitate concentrate
- All components with Anti- HBc (Total) Tested
- All components of NAT (Nucleic Acid Amplification) Tested
- Tested Performed
- Blood Group ABO- Rh
- Rh- Antibody titre
- Coombs Direct test
- Coombs Indirect test
- Cold Agglutination
- HbA2 (Haemoglobin 2) Electrophoresis
- Rh phenotype and Kell (Antibody Screening)
- Complete Irregular Antibody Identification

Important Point

- Charges are set by joint decision of Hospital Transfusion committee, RSACS, and Health Directorate.
- It is basically a not for profit department therefore only cost is covered.
- Fund collected goes to hospital's account but have a separate sub account.

Process

Step1: Donor form → Medical social worker → ~~Pre~~ donation counselling

Step2: Hb test, it should be more than 12.5

Step 3: MO screening → General physical examination → ~~N~~ucleic Acid Test

Step 4: Donors Room → Donation Completes → ~~R~~efreshment Room

Step 5: TTD lab → Kept as whole blood → ~~C~~omponents Preparation

Step 6: Components Preparation → ~~R~~BC & Plasma → ~~P~~latelets & Plasma Serums

Step 7: Labelling and storage

Step 8: Request come from patient with sample

Step 9: Sample → Serological lab → forward group test (Cell Grouping)/Reverse Group Test (Serum Grouping)

Step 10: Cross matching → minor (Serums)/ Major (Cells)

Steps 11: Coomb's Test (To find out unregulated anti bodies)

Steps 12: Compatible → Issue