Summer Training at

S.K Soni Hospital
Jaipur
(April 8-June 8, 2013)

A Study of Departmental Process Flow

By
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Under the guidance of
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Post Graduate Diploma in Hospital and Health Management
2012-2014

Institute of Health Management Research,
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CERTIFICATE

This is to certify that **Lt Col Rajesh Singh** student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management Research, Jaipur,Batch 17th has undergone summer training on "**A Study of Departmental Process Flow**"at S K Soni Hospital,Jaipur from 08 April 2013 to 07 June 2013.

The candidate has successfully carried out the study assigned to him during summer training and hisapproach to theanalysis has been sincere, scientific and analytical.

I wish him success in all hisfuture endeavors.

18/10/2013

Dr.Susmit Jain
Faculty and Mentor
IIHMR, Jaipur

Dr. Ashok Kaushik
Dean,Academic and Student Affairs
IIHMR, Jaipur

करें जिंदगी की बात, हमारे साथ
SONI GROUP OF HOSPITALS

SK SONI HOSPITAL

SKSH/HR/TC/2013/203 Date: 22/06/2013

To whomsoever it may concern

This is to certify that **Col. Rajesh Singh** pursuing his Post Graduate Diploma in Hospital Management at IIHMR, Jaipur has completed his summer internship on "**A study of departmental process flow**" in Quality department from **8th April 2013 to 8th June 2013** in **SK Soni Hospital**, Vidhyadhar Nagar, Sikar Road, Jaipur.

During this period we found him sincere and hard working.

We wish him all success in future.

For S.K. Soni Hospital
(A Unit of Soni Hospitals P.Ltd.)

Dr. Rajesh Parashar
Medical Superintendent

NABH H-0115 NABL M-0399

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Acknowledgement

This report is the result of eight weeks summer training whereinI have been accompanied and guided by many people.Itwas a pleasant opportunity to express my gratitude to all of them.

I am gratified to **Dr. B.R. Soni**, Director – Administration who found me suitable as Management Internin this organization and gave me permission for two months training.

I am deeply indebted to **Lt Col Rajesh Prasher, Hospital Superintendent** withoutwhose able guidance,this training program would not have delivered the desired results.

Iconvey my sincere thanks to all the departmental heads and staff who rendered their assistance and guidance where ever and whenever it was sought from them.

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I genuinely thank my parents, family and friends for their support while carrying out this training.

Lt Col Rajesh Singh

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ABBREVIATIONS

A&E	Accident and emergency
AKD	Artificial kidney dialysis
AERB	Atomic energy regulatory board
AMO	Assistant medical officer
ALOS	Average length of stay
BMD	Bone mineral densitometry
BRIT	Board of Radiation and Isotope Technology
BMC	Bombay municipal corporation
CE	Chief executive
CT SCAN	Computerized tomography scan
CSSD	Central sterile supply department
CDC	Child development centre
CMO	Casualty medical officer
CEO	Chief executive officer
CCC	Customer Care Centre
DA	Director administrator
DPS	Deputy professional services
DN	Director – nursing
DIR	Director
DSA	Digital Subtraction Angiography
E & M	Engineering and maintenance
ENT	Ear nose throat
EEG	Electroencephalography

FSD	Food service department
GLP	Good Laboratory Practices
GCP	Good Clinical Practices
HH	Hinduja hospital
HRCT	High resolution scanning
HK	House keeping
HR	Human resource
HOD	Head of department
IPD	In patient department
ICU	Intensive care unit
ID	Identity card
IRB	Indian regulatory board
ICD	International classification of diseases
IT	Information technology
LIC	Life insurance corporation
MRD	Medical record department
MRI	Magnetic Resonance Induction
NOC	No objection certificate
OPD	Out patient department
OT	Operation theatre
MLC	Multileaf collimator
PACS	Picture archivedcomputerised system.
TPA	Third party assurance
NOC	No objection certificate
NABH	National accreditation for board of hospital and health

General Profiling of

S.K. SONI HOSPITAL

JAIPUR


BK SONI HOSPITAL
BKSONI HOSPITAL

1.Introduction

Soni Hospital is first hospital in the group which started in 1986 as a 20 bedded Nursing Home and by 1996 it had expanded to Rajasthan's first 100 bedded corporate hospitals. This state of the art multi-specialty hospital now also provides super-specialty services such asCardiology, CTVS, Oncology (Cancer), General and Advanced Laparoscopic Surgery, Critical Care and numerous others specialties.

Soni Group of Hospitals is one of Rajasthan's largest multi-super specialty, trauma and general hospital group in the private sector with a corporate ambience, replete with all hi-tech ultra modern facilities for total health care roof. The group consists of **SoniHospital, JLN Marg and SK Soni Hospital, Sikar Road and is located in Jaipur.** Founded by eminent **Dr.B.R.Soni**, the institutions have been envisioned with the aim of bringing to Jaipur the highest standards of medical care along with clinical research, education and training.

Soni Group is governed under the guiding principles of providing medical services to patients with care, compassion, commitment. Since its inception in 1986, the Soni Group has been the pioneer that has completely re-defined the healthcare scenario of Rajasthan.

SK Soni Hospital Constructed in a small span of 15 months and operational from Oct 2004, this hospital is now one the top class healthcare institutes in northern India. Spread across, extensively over **an area of 2,55,000 sq. ft.,SK Soni Hospital** is the first of its kind in private sector to be approved by the state government for medico legal Services. It is also the largest Hospital in Rajasthan accredited with both **NABH & NABL**. The institute includes a research center, nursing college, nursing school and some minor medical school diploma courses. It has 315 beds with proposed capacity of 600 beds and over 120 critical care beds with 09 operation theatres catering to over 20 specialties. SK Soni Hospital houses six centers of excellence which will provide medical intelligentsia, cutting-edge technology and state-of-the-art infrastructure with a well-integrated and comprehensive information system.

SK Soni Hospital is the first private hospital in Jaipur to handle Trauma and Medico-legal cases related to accidents and injuries. This state of the art hospital is equipped with all

modern world class equipments and facilities. Featuring multi-specialty and super-specialty departments, we provide premier healthcare to all. A Team of 60 renowned consultants headed by 5 ex-principals & HOD's of medical Colleges are affiliated to serve patients and their respective needs. SK Soni Hospital provides treatment in over 60 different specialities including Cardiology, CTVS; Oncology (Cancer); General and Advanced Laparoscopic Surgery; Critical Care; Neurosciences; Orthopedics, Polytrauma, Joint Replacement and Sports Medicine; Gastrosciences and numerous others specialties.

1.1Location

Located in Jaipur, situated in Sector 5, Main Sikar Road, Vidhyadhar Nagar immensity of size immediately distinguishes itfrom rest of the surrounding.

1.2Philosophy

The Hospitals philosophy is "**KaareZindagi Ki Baat … HamareSaath**" or "**Your Life … We Care**"

1.3Mission

We aim to provide world class healthcare at affordable rates to all members of the public.

1.4 Vision

To provide Quality health services with technological perfection and personal care under one roof with highly well equipped infrastructure by competent and devoted professionals at affordable cost that is inexpensive and accessible to everyone in an ethical and hygienic environment**.**

1.5 Achievements

Table 1 achievements of hospital

Outdoor Patients	**Over 2,50,000 patients.**
Indoor Patients	Over 40,000 patients.
Free Patients	over 50,000 patients.
Pathology Diagnostics	over 800,000 tests.

Radiology Diagnostics	over 100,000 studies done.
Blood Bank	over 25,000 Blood units processed.
Cardiology	Over 10,000 Angiographies Over 2,000 Angioplasties Over 2,000 Heart Bypass surgeries, Over 10,000 non-invasive procedures. Over 15,000 dialysis patients served
Urology	Over 750 procedures
Oncology	Over 10,000 cancer patients treated Over 15,000 radiotherapy cases Over 2,000 cancer surgeries. Over 1,000 cancer patients have been treated free of charge including drugs in the institute
Gastrosciences	over 10,000 invasive procedures
ICU cases	Over 100,000 ICU bed days of ICU services have been provided
Average Length of Stay	Very short and overall stay on an average about 4.15 days per admission
Longest Stay	Shri VineetMalpani stayed with us for over 240 days (he is alive today)
No. of CT Scans Done in a single day on one machine	239 scans in 24hrs for 220 patients on a single CT Scan

1.6 Milestones Achieved by SK SONI hospital

- Leaders in ICU Care: We have the highest Critical care Standards and maximum number of ICU beds with lowest infection rates
- Leaders in Cardiology & Cardiac Surgery: We are the only center in the state which performs Roto-Blator technique
- Leaders in Neurosciences: With Dr. S. R. Dharkar at our helm, we have the best Neurosurgery unit with 1st Modular Neuro Suite
- Leaders in Oncology: With our existing infra-structure, daycare ward and Primus Dual Energy Linear Accelerator & HDR Brach therapy, we have most advanced cancer center in the state
- Leaders in Nephrology: We are doing over 400 dialysis cases a month and have advanced techniques such as CRRT
- Leaders in Joint Replacement: We have performed the maximum number of Joint replacement surgeries in the state. We did the 1st ACL, the 1st bi-lateral joint replacement & the 1st THR+TKR.
- Amongst top in Gastroenterology and GI Surgery: We are doing most procedures macroscopically including advanced bariatric surgery for obese patients.
- Leaders in Radio Imaging: with the 1st CT Scan and 1st MRI in Rajasthan in 1992 and 1993, not to mention the 1st digital MRI in India in 2012 and a world record number of cases being done daily in SMS medical college. Soni group is the clear leader in Imaging in Rajasthan.

1.7Basic Facts about S.K. SONI Hospital:

Table 2 Basic Facts about Hospital:

S. No.	Subject	Figure
1	Bed Strength	205 beds
2	Bed occupancy Rate	100%
3	ALOS	3 days
4	Nurse is to patient ratio • Critical ICU • Step down ICU • Floor	3:1 1:1 2:1 or 3:1 5:1 or 7:1
5	Number of Admissions/month	approximately 2000
6	Number of Discharges/day	60-70
7	Number of OPD patient /day	100-200
8	Number of emergency case	10/ day

2. GENERAL FINDINGS:

2.1 CLINICAL SERVICES

2.1.1 Outpatient department

OPD is one of the the most important department of the hospitalOutpatient department (OPD) of S.K SONI Hospital is the first encounter of patients coming to get their treatment.OPD department is the link to other departments of the hospital and thus rising cost of hospital care..

OPD department of **Soni hospital** is divided into 2 blocks:

I. General OPD
II. Superspecialty OPD

2.1.1.1 Key records maintains in OPD file:

When the patient comes to OPD department, a file is generated that contains various documents (listed in annexure 1).

2.1.1.2 Access toOPD Services:

All patients who visit the Hospital or Free OPD for the first time for consultation/other services are issued a card. This card and is attached to the registration form and is issued to the patient at the time of registration. The C.R number is present on the card.

The CR number is important, for it is only with the help of the HH number, that the patient's Medical Record folders can be accessed. Patients are advised to always carry their card number whenever they come for follow up visits to the OPD or when they have to be admitted as inpatients.

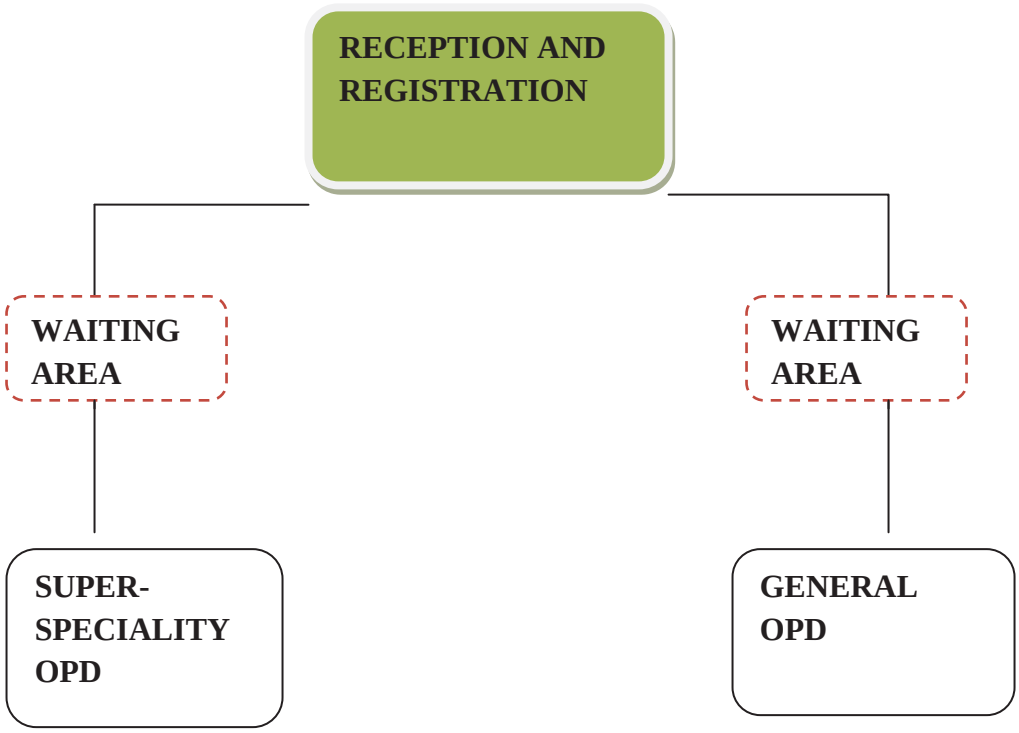
2.1.1.3 OPD Appointment:Appointments can be fixed over the telephone to the call centre (facility for patient appointments have been out sourced) or personally across the Reception counter. Fax and e-mail facilities are also available.

2.1.1.4 Location:

OPD department in Soni hospital is located on the ground floor.

2.1.1.5. Layout:

Figure 1Layout of OPD department



2.1.2In Patient Department:

The In-patient department of the S.K SONI Hospital is spread over ground floor, 1st floor, 2nd floor, and 3rd floor. On the ground floor general male and female wards are located. Oncology ward and post operative ward are also located on the ground floor. ICU is located on the 1st floor. Medical ICU is located on 2ndfloor. On the third floor single deluxe, single room and twin sharing rooms are located. Each floor has reception where the patient final billing is done for discharge. Each IPD has a patient call monitor to respond immediately to the patient call from their respective beds. The bed number is displayed and the nurse responds immediately to the call

2.1.2.1 Key Records maintained in the IPD file- **:**

When the patient comes to IPD department, a file is generated that contains various documents (Listed in annexure 2).

2.1.2.2 Bed distribution in IPD-

Table 3Distribution of beds in IPD

Male general ward:	14 male beds
Female general ward:	10 female beds
Post operative ward:	26 beds
Oncology ward:	23 beds
Medical ICU:	18 bedded
NICU:	6 Bedded
Deluxe, suit, sharing room:	22 rooms

Initial Assessment–

The purpose of the assessment by qualified individuals (Doctor, nurse) is to formulate a plan of care for the patient. It also ensures that the care provided to each patient is based on patient's relevant physical, psychological, and social status needs.

Re- Assessment-

Repeat Evaluation of patient's condition for Vitals, physical status and for deciding the change of Diagnosis / Plan of Care.

Re-Assessment is based on the following factors:

- There is a significant change in patients condition / diagnosis
- When patient's treatment is changed

- Patient's response to treatment
- At regular established intervals

2.1.2.3 Key registers maintained in wards:

There are various registers maintained in wards in order to achieve quality in services (names of those registers are mentioned in annexure 3).

2.1.2.4 Discharge policy-

A patient can be discharged if after the necessary assessment by the multidisciplinary team establishes that he/she no longer requires inpatient investigation, treatment or care.

At the time of discharge the patient is handed over the following documents-

- Discharge Summary
- Patient file

2.1.2.5 Patient transfer to diagnostic imaging services:

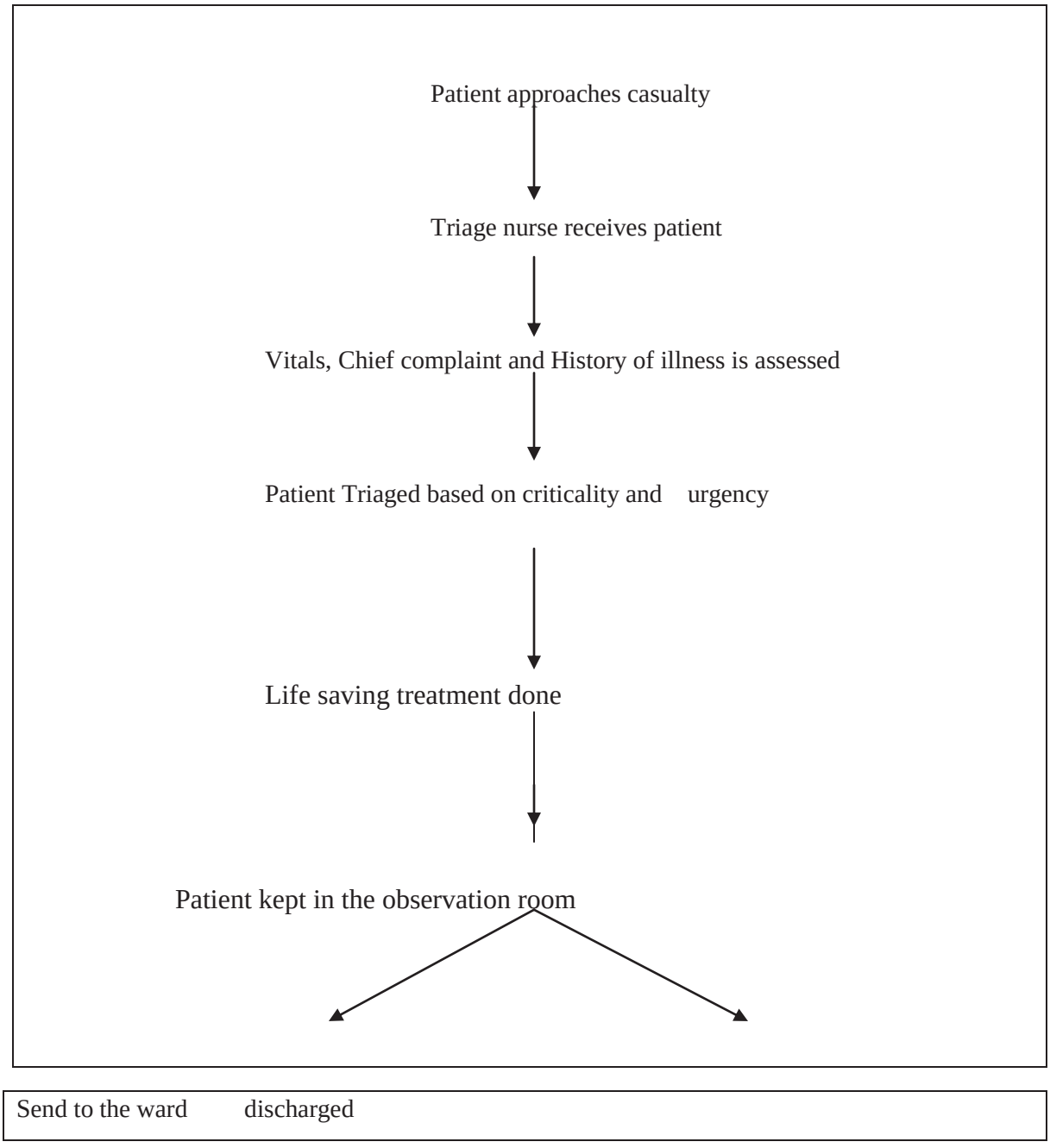
Any patient being transported for a procedure must be transported in an appropriate way according to the patient's medical condition and also based on the hospital policies. The patient may be ambulatory or transported in arms or by wheelchair, or stretcher. Patient safety being a priority the side rails should be kept in the up position during transport. Patient must be under the supervision of a responsible person during the stay.

2.1.3 Accident &Emergency

- The department is responsible for treatment of emergency cases.
- The department is responsible for informing the police in cases of traumas, poisoning, suicide,homicide,râpe,assautetc. and notification of all noticeable diseases to BMC.

2.1.3.1. Triage Process Flow:

Figure 2Triage process flow inaccident &emergency



There were 5 beds and in cases there are more patients then they are adjusted depending on the condition of patient. Two of these are well equipped with defilbrillators, capnograph monitors, ventilators, suction apparatus and other life support system manned round the clock by efficient doctors and sisters.

There are two ambulances, one with advanced cardiac life support and one with the basic life support.

2.1.3.2 Staff-

In Staff of emergency there is one CMO, one medical Jurist, one Incharge and two staff nurses.

2.1.4 SEAROCCentre:

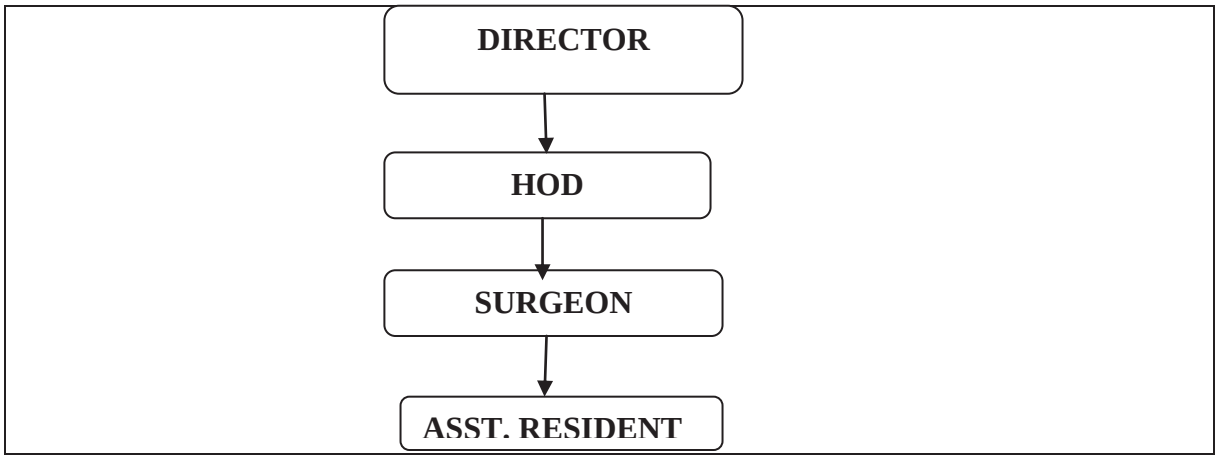
Cancer disease is increasing day by day and treatment challenges are also increasing. Cancer which was equal to death warrant few years back is not so deadly now with better understanding of cancer biology and availability of better technology for treatment of cancer patients. With the use of multimodality treatment the results of cancer treatment has started improving. At SEAROC Cancer Center, we are a consortium of dedicated and experienced doctors in different fields of Oncology like Medical Oncology, Surgical Oncology, Radiation Oncology and Allied Branches like Pathology, Radiology etc.

2.1.4.1 Main focus of work:

We are providing state of the art services in medical, surgical and radiation oncology and we are also integrating our indigenous forms of treatment in pursuit of improving the results and reducing the cost of treatment.

2.1.4.2. ORGANOGRAM:

Figure 3.Organogram of SEAROCcentre.



2.1.5 Fertility centre

2.1.5.1 Mission:

Our mission is to provide infertile couples the best possible fertility treatment with highest possible rate of success at affordable cost.

2.1.5.2 Services:

- Basic infertility workup
- Ovulation induction and follicular monitoring
- Intrauterine insemination (ICU)
- In vitro fertilization (IVF)
- Intracytoplasmic sperm injection (ICSI)
- Testicular epididymal sperm aspiration (TESA) $ (PESA)
- Egg,sperm and embryo freezing
- Egg,sperm and embryo donation
- Surrogacy
- Assisted hatching

2.1.5.3. Staff:

In staff there are one HOD, one embryologist, one Gynecologist, one Counselor, one Manager, three nursing staff and staff boy.

2.2 SUPPORT SERVICES:

2.2.1 Lab Science Department:

Department of Lab medicine comprises of 5 Labs:Biochemistry, Histopathology, Hematology, Microbiology, and Blood Bank.

2.2.1.1 Biochemistry

Biochemistry lab is at the basement. The department has an automatic machine to carry out various tests. A machine print out is received, entered in the register and report is generated. The biochemistry dept. also maintains a follow up card for patients. The tests on OPD samples are conducted here, and also any special tests on OPD as well as IPD sample is also conducted here.

2.2.1.2 Hematology

Hematology lab is located in the basement. The department has got an automatic machine for CBC (Complete Blood Count). It has a separate Coagulation Fluo-cytometry room, for carrying out various tests.

2.2.1.3. Histopathology

Histopathology lab is located in the basement. There is no automatic machine in the department and all the tests are done manually. The department is divided into 2 sections - Surgical Pathology and Cytopathology. All the tests related to microscopy are performed here. It has a rotary microtome, staining machine and tissue processor.

2.2.1.4. Microbiology

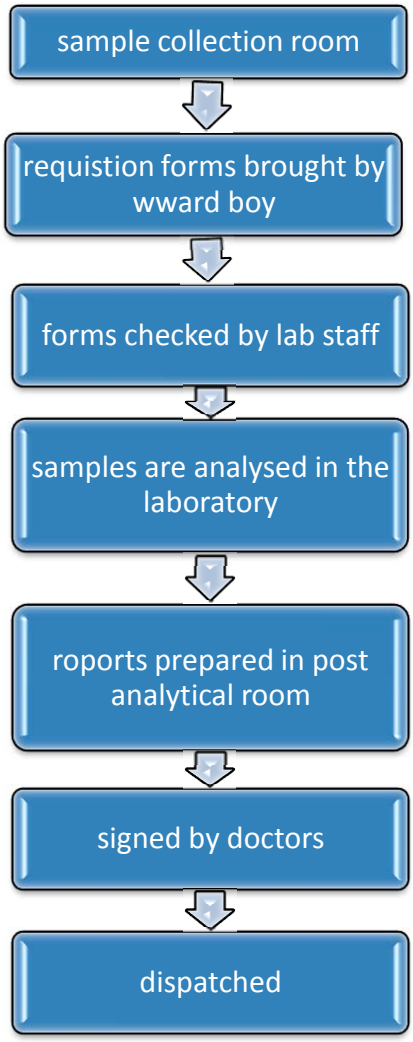
The microbiology departmentis located in the basement. It has got a separate Mycobateriology room for tuberculosis tests, where a negative pressure is maintained. The lab has a hot room, storage area, incubators and refrigerators.There is laminar airflow arrangement.

2.2.1.5. Serology

The department of serology is a part of microbiology department only. It receivesin test tubes and the various tests are performed. The department consists of a Laminar Air Flow machine for culture preparation.

Working procedure:

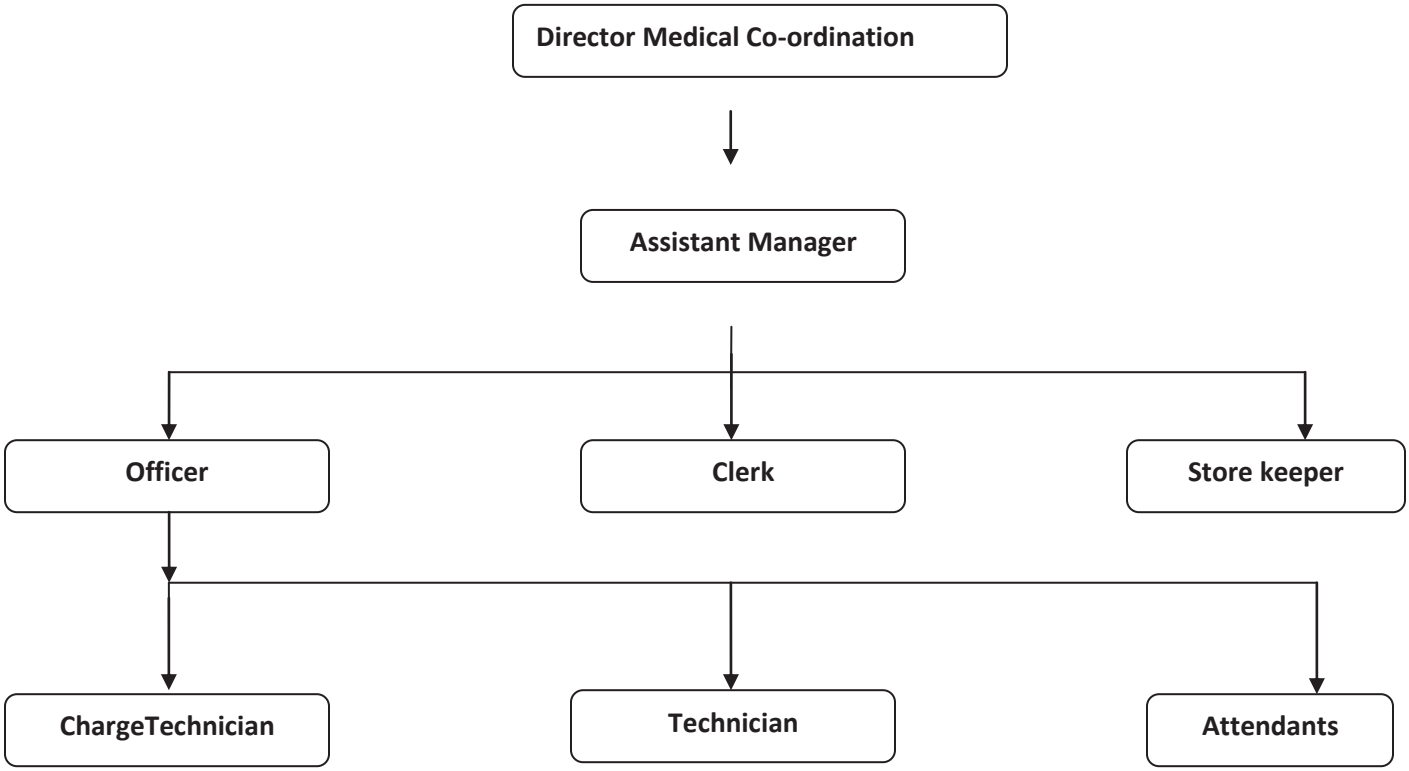
Figure 4 Working procedure of Lab Science Department**:.**



2.2.2 CSSD

2.2.2.1 Organogram

Figure 5Organogram of CSSD.



2.2.2.2. Introduction:

The department is located on the 5th floor close to the O.T. The used material (linen, equipment etc.) and sterilized material from and to the O.T. are conveyed through two separate dedicated elevators. From wards CSSD personnel collect the used articles every night.

During the day the used articles from the wards are sent to CSSD by their personnel.

The layout of the department and flow of materials ensures that there is no possibility of mix up of unsterilized materials.

The department is divided into 3 parts- dirty area, clean area and sterile area.

All sterilizers are cleaned once a week. The inside of the sterilizer is cleaned ever morning with a disinfectant solution.

Micro biology department checks the air count weekly and issues a report of sterile area. In case of unsatisfactory levels, microbiology department intimates the CSSD within its report.

2.2.2.3. Objectives of the department

Central sterile supply department is responsible to sterile material for use in the O.T and wards in order to control the incidence of nosocomial infection.

The department is also responsible for maintaining sufficient stock level of all surgical instruments, drapes and other accessories required for surgical procedures in good condition. The following types of items are sterilized:

I. Surgical instruments
II. Catheters (rubber)
III. Linen
IV. Dressing materials
V. Laparoscopic instruments
VI. PVC Tubing etc.

2.2.2.4. Staffing plan:

Table4Staffing plan for CSSD:

Category	**No.**
Asst. Mgr.	01
Officer	01
Sr. in-charge technician	02
charge technician	03
Sr. technician	06
Technician-II	13
Assistant-II	01
Store keeper	01
Attendants	24

2.2.2.5. Standard operating procedures/protocol:

I. Cleaning activities
   - Floor mopping
   - Surface cleaning
   - AC duct cleaning-2.5% Hygenol followed by clean water every fortnight.

II. Quality Check
   - Each cycle graph is analysed.
   - Color change of biological indicator.
   - Color change of indicator of pH.

III. Resterlization of CSSD goods

Sterile articles are stocked in sterile area as per standard stock in FIFO protocol.Every day in the morning all sterile stock is checked for its expiry date.Articles are taken out for resterlization a day prior to its expiry date.Articles packed in linen remains sterile for one week, articles packed in non-woven material remains sterile for 3months, articles packed in peel pouches remains sterile for 6months, Articles packed in paper remains sterile for 1month.

2.2.3Imaging Department:

The Imaging Department is a diagnostic department where various investigations of the patients are done. Both OPD &IPD patients come for investigation either through an appointment or as walk in patients. In the department walk in patients means patients without having an appointment. The patient comes for the investigation and after viewing the images of the scan the radiologists report. On the basis of the reports the diagnosis is done.

The Imaging department can be divided into 5 sections namely:

- X ray(General radiology)
- Ultra Sonography
- Computed Tomography scan(CT scan)

- ColorDoppler
- MRI(Magnetic Resonance Imaging)

Imaging department is located in the basement. The reception counter is located in the basement and the billing for the laboratory test and imaging is done on the same counter.MRI is outsourced and in collaboration with OKAY diagnostic.

2.2.3.1 Objectives of the Department:

- To do quality imaging using all necessary safety measures in radiation.
- To perform quality reporting and interacting with clinicians on regular basis through follow ups.
- Monitor the work of all Technicians on regular basis to maintain as well as improvequality.
- Monitor and regulate usage of different equipments in Imaging Department.
- Interact with Bio-medical department on regular basis for upkeep of all equipments.

2.2.3.2. Quality Indicators of Imaging

I. Daily Calibration checking of machines
II. Downtime record
III. Maintenance of record.
IV. Equipment failure reporting system.
V. Report turnaround time (TAT)

REPORTS	TAT for Reports
8 am to 1 pm	**4 pm**
1 pm to 4 4pm	**6 pm**
After 4 Pm	**Next day till 10:30 am**

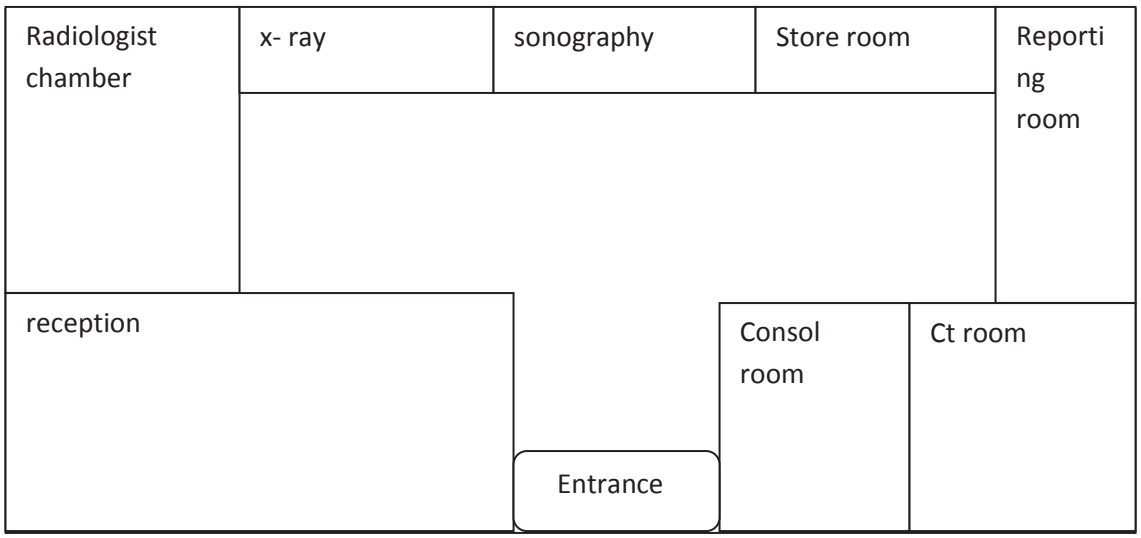
2.2.3.3 Location and layout:

X-Ray, Ultrasound (USG), Color Doppler, CT, and MRI all imaging services are located in basement.

2.2.3.4. Layout:

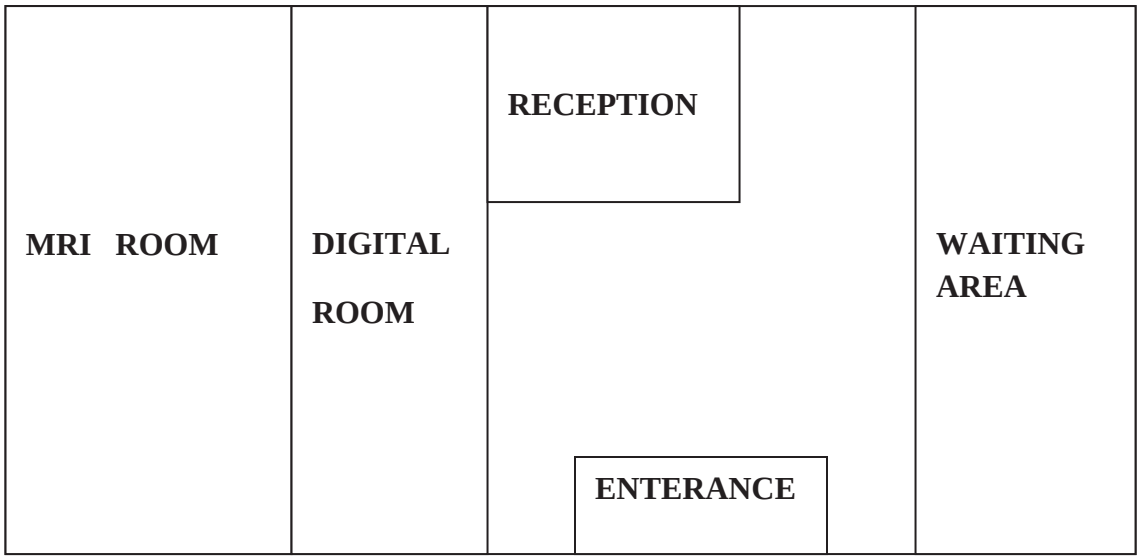
1. Radiology Department:

Figure 6.Layout of Radiology Department:



2. MRI Department:

Figure 7Layout of MRI department



2.2.3.5. Procedures:

Appointment can be given on the following basis:

A) OPD / Walk in appointment:

1) Receptionist does the appointment on the basis of consultant's letter brought by patient/ relative and available slot.
2) Inform date and time of investigation/ procedure.
3) Inform charges of the investigation/ procedure.
4) Ask to bring consultant's letter.
5) Ask to bring all earlier investigation/ procedure reports and films.
6) Instructions about the diet intake specific for the investigation/ procedure.
7) Receptionist gives a manual written appointment slip having details of date/ time of appointment.

B)In-patient appointment

Appointments for MRI:

1) Staff floor nurse sends the MRI request from two copies by attendant to the receptionist at the MRI counter for appointment for the technician inside the department.
2) It is the responsibility of the technician to take care of the slot and the same day or any earlier slot available.
3) Receptionist enters the patients name and demography details/ date and description of the procedure in the request form.
4) Receptionist gives the white and blue copies of the MRI request to calling up of the patients for the procedure.

Appointments for x-ray procedures / USG / Colour Doppler/ Mammography/ C.T:

1) Staff floor nurse does the online entries of registration for any above investigation of the system.

2) In every 30 minutes receptionists check the outer floor. Wise request statement after the details in the same; she does the booking in the system.

2.2.3.6. Legal requirements and guidelines:

I. All sections in the Imaging department follow various legal guidelines set by Government of India. All Imaging Services follow regulation by the AERB and all new interaction are subject to approval by AERB before commencement of services.

II. 2. For all Radiation emitting (or) generating equipments in medical use, whether it is in diagnosis (or) treatment purpose [such as X-ray (low energy), X-ray (high energy), Brachy therapy units, CT, Fluoroscopy, Dental X-ray Units, PET CT, and Gamma Camera etc.], the hospital should get first authorization from AERB to use the above units in the hospital.

III. Next, hospital should get NOC from AERB for importing the units/ radioactive source from BRIT/ outside country/ private – it is valid only for 1 year and for subsequent usage the hospital needs to apply for the NOC for each units.

IV. Next after importing units/ radioactive source the hospital should send the form for registration units (of installation) with plan. Type approval certificate of unit, QA details, Survey details to AERB/ RSD. In the case of radioactive source, the hospital should intimate the arrival of above from (inland/ outland) in a particular form, and then only the hospital can to use the unit (or) source after confirmation.

V. In the case of radioactive source used (or) decayed, hospital should get NOC from AERB for re-export to supplier outside country (it is internationally accepted norms).This will also be valid for 1 year only.

VI. The AERB conducts random checks of the department on routine basis.

2.2.4 CATH LAB

The department deals with services which can be both diagnostic for detection of the diseases and therapeutic, on the basis of diagnostic findings. It covers mainly

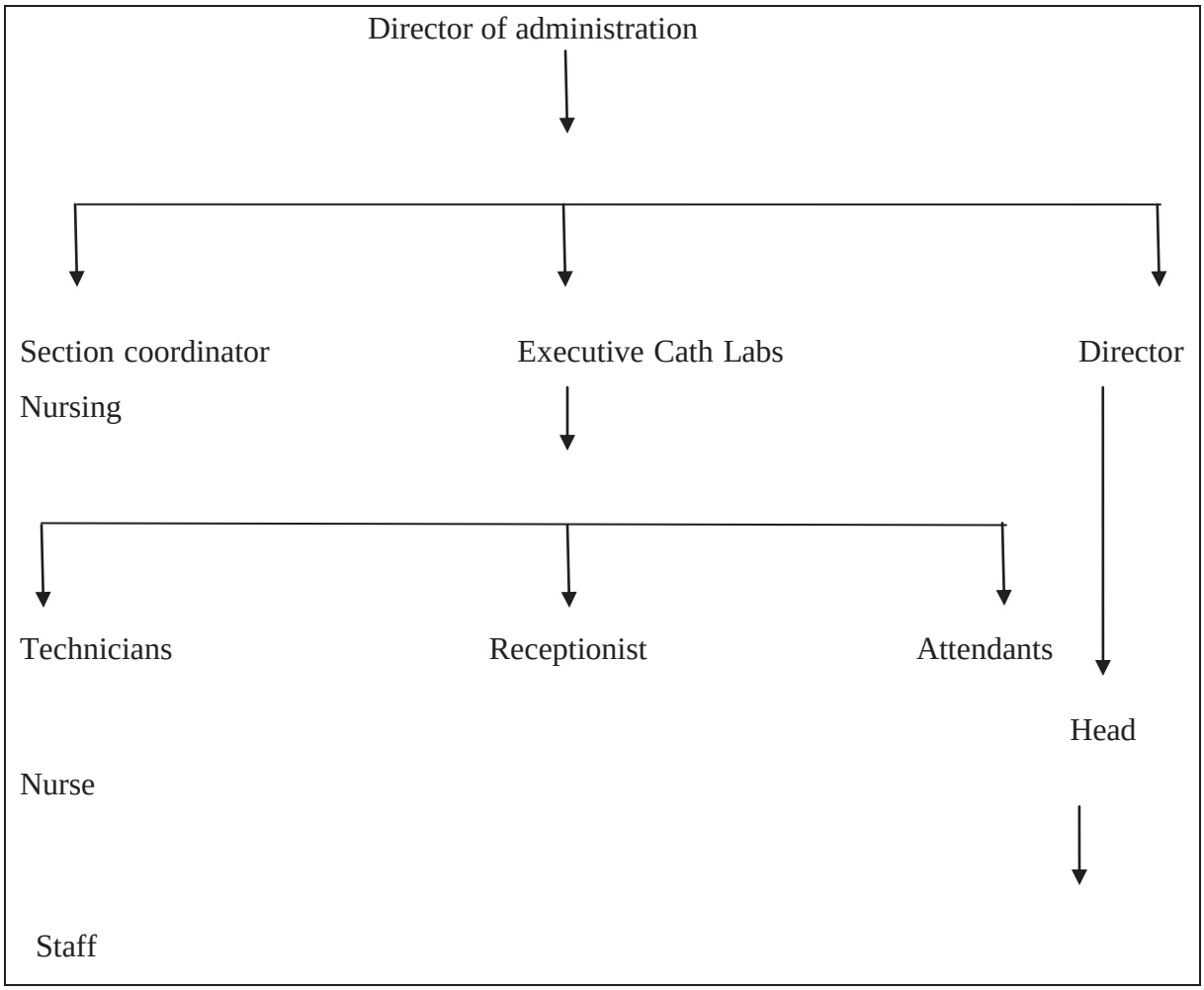
- Coronary angiography (radial , femoral package's)
- Intra aortic balloon pump(IABP)
- Temporary pacemaker
- Cardiac catheterization
- Pericardial tapping
- Aerogram
- Combo coronary angiography
- Coronary angioplasty
- Balloon angioplasty
- Permanent pacemaker
- Valvuloplasty

2.2.4.1 Staff-

There are one Executive administrator, two Nurses, three Technicians, two Receptionists and two Hospital attendants present.

2.2.4.2 Organogram for the Cathlab:

Figure 8Organogram for the Cath lab:



2.2.4.2 Patient flow process:

- There are patients coming from SSS, IPD.
- Patients are appointed only after taking a detailed history (in person) and analyzing the condition or status of the patient.
- Informing relatives about various packages available.
- According to the appointments the patient is taken in, all the necessary preparation is done, with the team of cardiac surgeon, consultant, nurses, attendants, technicians.
- A separate charge sheet is prepared for each patient that records all things consumed during the surgery or procedure.

- After the procedure, the patient is kept under observation depending upon the approach and case.
- Reports for all day care procedures are given the same day and that for angioplasty, given before discharge
- Cath lab offers different femoral and radial packages for angiography. CathLab maintains proximity with intensive care unit.

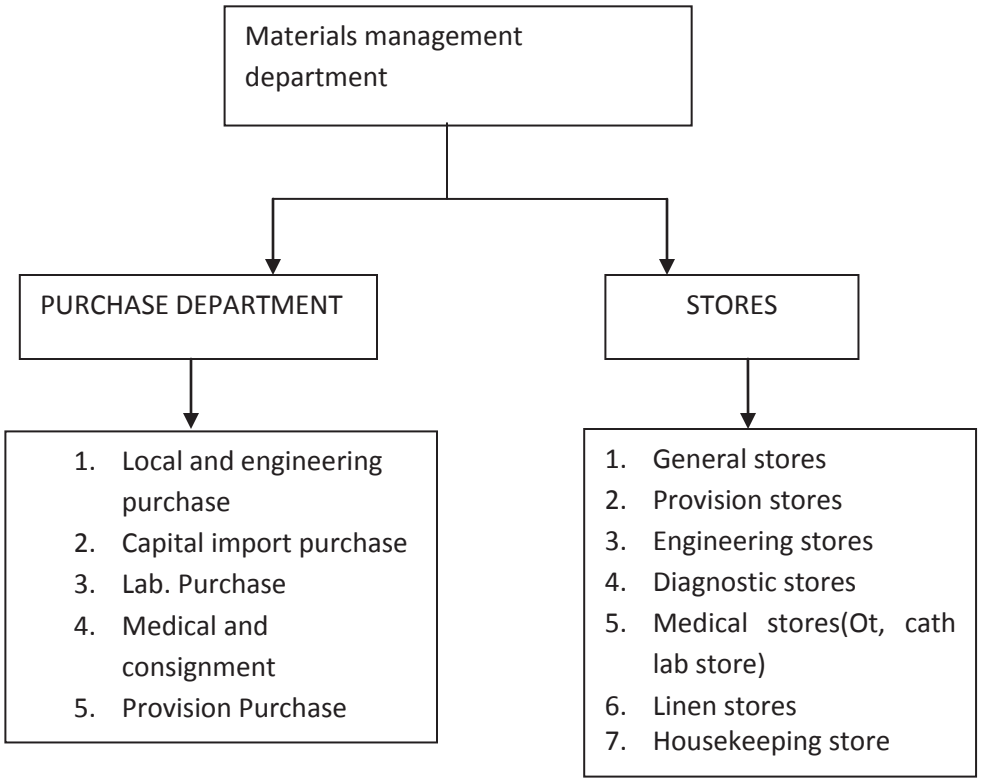
2.2.5 Material management department:

The material management department aims at maintaining uninterrupted supply chain without affecting cost, quality and service parameters.

Objective of the department:

- To provide the right item, at the right time, at the right price and in the right quantity.(provided payments are made on time).
- To ensure timely audits of various departmentswith coordination of the audit team.

The materials management department can be classified majorly under 2 heads i.e. purchase department and stores.



2.2.5.1 Purchase department:

2.2.5.1.1. Location of the department:

Department of purchase has three units:

I. SK Soni drug store
II. SK Soni central stores
III. Central store at Soni hospital, JLN marg.

2.2.5.1.2 Structure of the department:

Department of purchase is responsible for:

- Planning monthly purchases
- Inviting quotations and negotiations of prices.
- Placing the purchase orders.
- Inventory control.
- Committees.
- Analysis and reports.
- Vendor selection and evaluation.
- Policy making related to purchase
- Payment scheduling with department of finance
- Auditing with department of audit

2.2.5.1.3. Policy of Purchase:

All operational reports generated will be given to

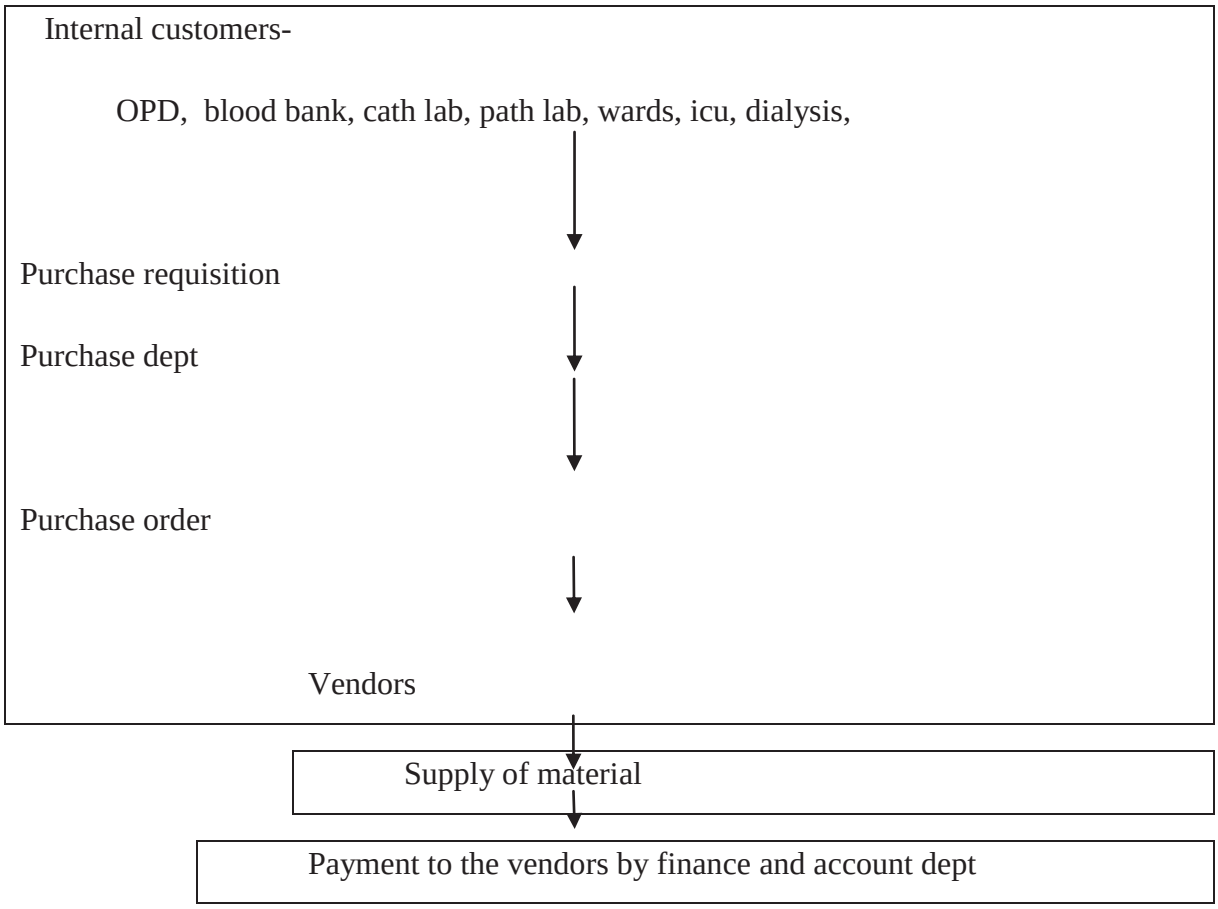
General manager purchase

Deputy medical superindent

Managing director

2.2.5.1.4. Internal customers- flow process:

Figure 9.Internal customers- flow process in purchase department:

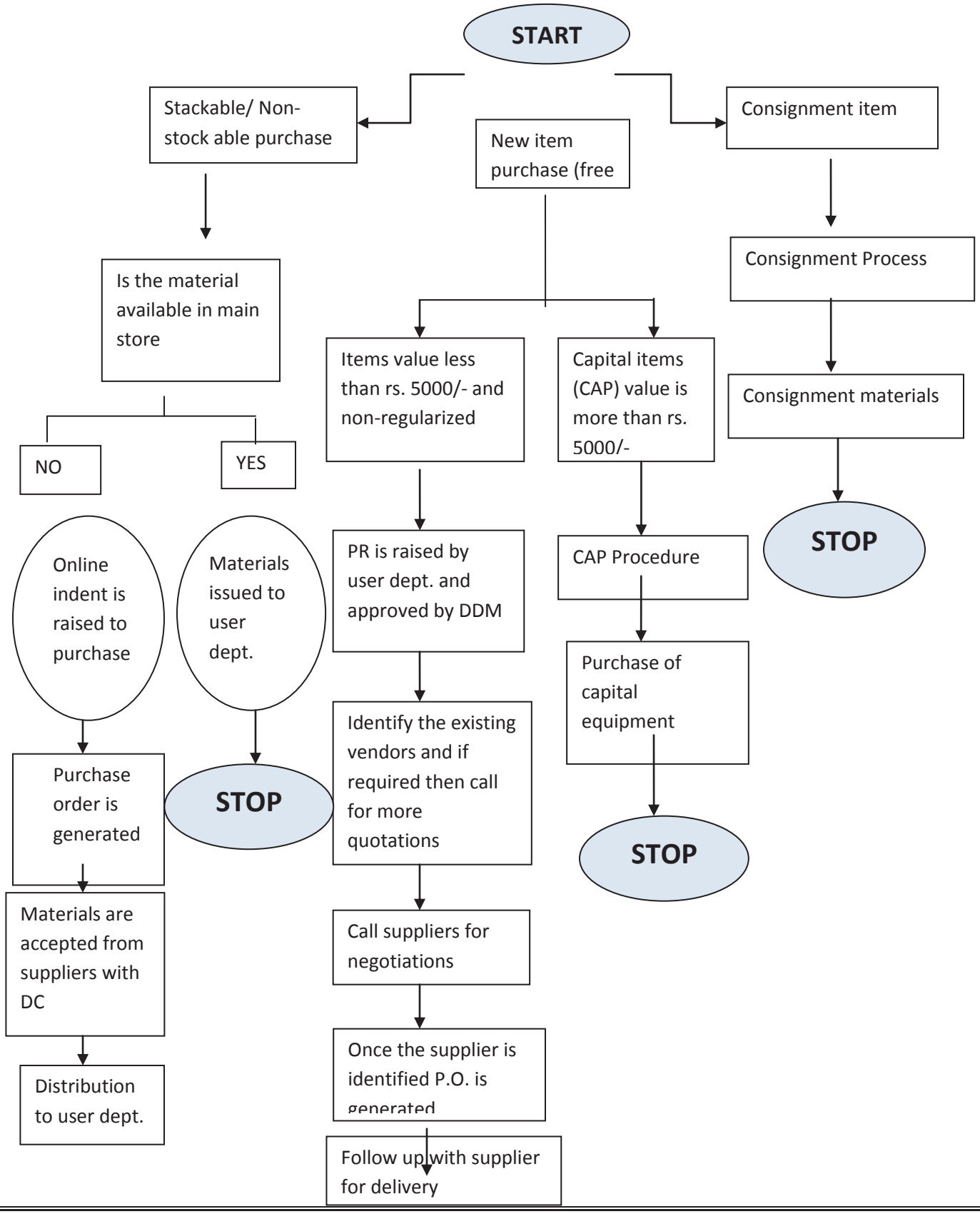


2.2.5.1.5. SERVICE STANDARDS**:**

1. To keep a check on inventory levels and maintain stock for one month.
2. Procuring standardized goods at right price
3. Processing the purchase requisition into purchase order
    - Ip – 2 days
    - Op- 3 days
    - Stationary his- 2 days
    - Manual orders- 4 days
    - New items- 7 day

2.2.5.1.6. Process flow: Purchase Section

Figure 10Process flow in Purchase Section



Narcotic drugs

NDPS11 license has to be renewed every 2 years

Pharmacy license has to be renewed every 5 years.

Drug and Therapeutic Committee:

This committee is established to discuss the issues related to usage of drug products.This committee directly reports to chief executive

Committee Members:

- Director of quality and Medical education
- Director Professional Services
- Director Admin
- DirectorNursing
- Head Lab Medicine
- H.O.D Pharmacy

Usually in stores various systems are followed to classify and arrange items-

1. VED- Vitals, Essentials and Desirables (According to importance of items)
2. HML- High, Medium, Low cost
3. SDE- Scarce, Difficult, Easy to procure
4. FSN- Fast, Slow and Non moving items

The basic process of issue and distribution to related departments, inventory management is same for all, which is as follows-

Related department makes monthly indent through the system by planning and forecasting based on their daily consumption

Based on consumption by the related department, store maintains inventory and issues timely requests for material procurement based on lead time

Purchase department contacts the vendor and ensures delivery of required items at right time

Once the requested numbers of items are received (it goes through thorough security check, as security is also provided with the list of requested items)

Goods receipt note is sent to the accounts department for payment to the vendor

- For goods ordered on consignment, if unused or short expiry, are immediately returned back to the supplier by issue of a gate pass, for security's reference .Also, returned item's balance is deducted from the amount to be paid.
- The issue of items and usage in the department follows FIFO(First In First Out) principle.

2.2.5.2 Stores

1)OT Store:

It maintains inventory of items for over 60- 65 surgeries.

Items are of two types –

- Pharmaceutical(emergency drugs, narcotics, chemicals)
- General(sutures, drapes, consumables etc)

It is situated on the 3rd floor, and surrounded by operation theatres.

- List of the surgeries to be scheduled for next day with surgeon's name is provided a day before, so that all the preparation and required items are kept ready arranged in the tray.

  Two trays are provided-

One with anesthesia and other with general consumables and special requirements like implant materials etc.

- With each tray different charge sheets are given, in which all the items used during surgeries are recorded and helps in keeping an account of all the materials provided and returned back to the store , any missing can easily be recorded.
- If an item is required from medical/pharmacy store on emergency basis, it is taken on loan and indent is issued to store later.
- Weekly checking of all items is done.
- Narcotics are kept locked.
- Warmer is kept at 60 degree C, to keep warm saline ready if required.
- Whenever any item is purchased from the supplier, batch no. , expiry and M.R.P is always checked.
- List of (diminishing) and non- available items is generated daily.
- Staff-

  There are 2 Senior Supervisors, 5 clerks and boys.

2) Engineering Store-

It keeps various spare parts that may be required in electrical equipments, plumbing and mechanical items for maintenance of equipments.

- Around 300-400 items are regularly moving items.
- Care record- regular maintenance
- Quest record- Inventory management.

Process flow -

Breakdown or requests for replacement

Department complains to Engineering

System generates complain no./docket

Requirement of material to stores

Issue of the required part

- First week of every month, indent for stores are raised through system to purchase department, based on consumption of last three months.

  STAFF-

  1 storekeeper and one store clerk.
- Records maintained- requisition book, issue book, guarantee card book.
- For a part to be discarded HOD certifies for condemnation and then it goes to discard department.

3) General Store

- It maintains an inventory of all the stationary items, plastic items, general items like tissues, etc, capital and diagnostic items.

- From here the items are delivered to the respective departments.
- It has around 700-800 items and turnover of 450-500 items per month.
- For bulky items they deliver thrice a month.
- For non stock able item, purchase is made through stores but the delivery is directly done to the department and it is not stored.

4) Biomedical Store-

- It keeps storage of all the spare parts, accessories of the biomedical machines used in hospital and not general electronic or mechanical machines.
- Its inventory has high cost and difficult to procure items.
- For routine parts (stored in compactor), no indent is required and are supplied directly as per need.
- For occasional special parts,

Indent made by biomedical engineer' requisition

Purchase order → Delivery → Payment from purchase department

- If the part to be replaced is of high priority and is unavailable, standby arrangement is made.
- In case the warranty period is on, the Company is called for the maintenance and problem handling and replacement if any.

2.3ADMINISTRATIVE SERVICES:

2.3.1Human Resource Development

Motivation

At **SK Soni Hospital** you are part of the revolution to drive development in growth markets across the world. In the process, you help **SK Soni Hospital** become the market leader in our chosen markets and a preferred employer who you are proud to work with. Along the way, you build your career and you build long-lasting relationships. The opportunities are endless; growth is a function of your abilities and willingness to take on more. You show that you deserve to grow and you will be given all possible support – meritocracy is the only rule of the game.

The human resource experts advice to management in all aspects of human resources mangement and plays a key role in strategic planning.

The department is staffed by skilled HR professionals and through best practice HR policies,promotes a working environment which is conductive to positive employee relations and promotes the personal and professional development of employees.

Responsibilities

Resourcing and retention:it involves the recruitment and selection of staff in the organization.It is the aim of HR department to source and retain high caliber staff for the organization who will add value to the hospital in the future.

HR services: The HR depatment is responsible for the implementation of hospital policy on terms and condition of employment e.g employee renumeration, leave arrangements including sick leave,maternity leave etc.

Employee relations: The HR department is responsible for providing advice,spport and representation to services delivery managers throughout the hospital and for ensuring compliance with national and local aggrements in relations to employee relations matter

Learning and development: The HR department assists in continuous learning and personal deveolpment of managers and stff within guidelines of best practice,developments in employee enricchment and organizational objectives.

SManpower of organization

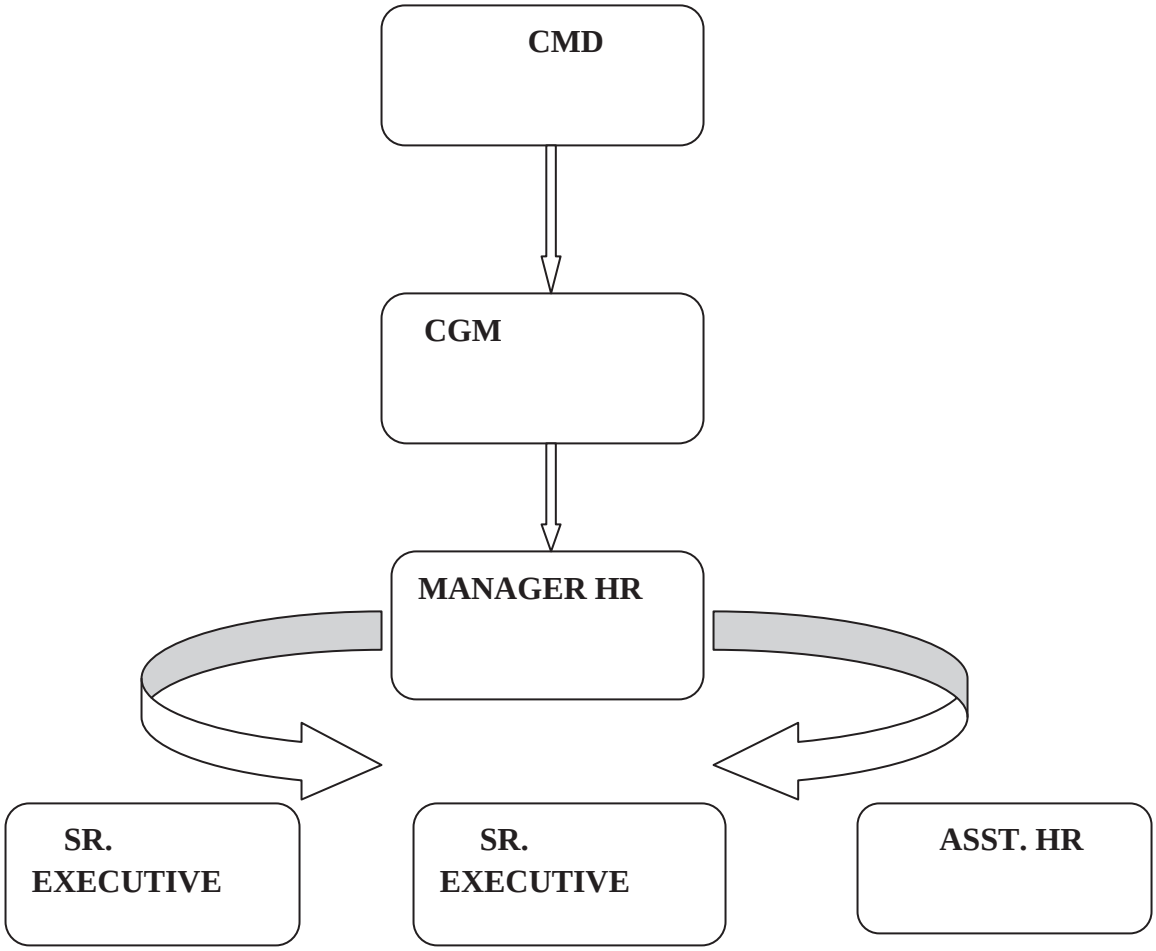
Table 5Manpower of organization

Total no of nursing staff:	**162**
Total no of technical staff:	56
Total no of office staff:	116
Total no of resident doctors:	31
Total no of resident doctors:	62

Hospital team consists of doctors,administrative managers,nurses,technicians,attendants and support service staff.

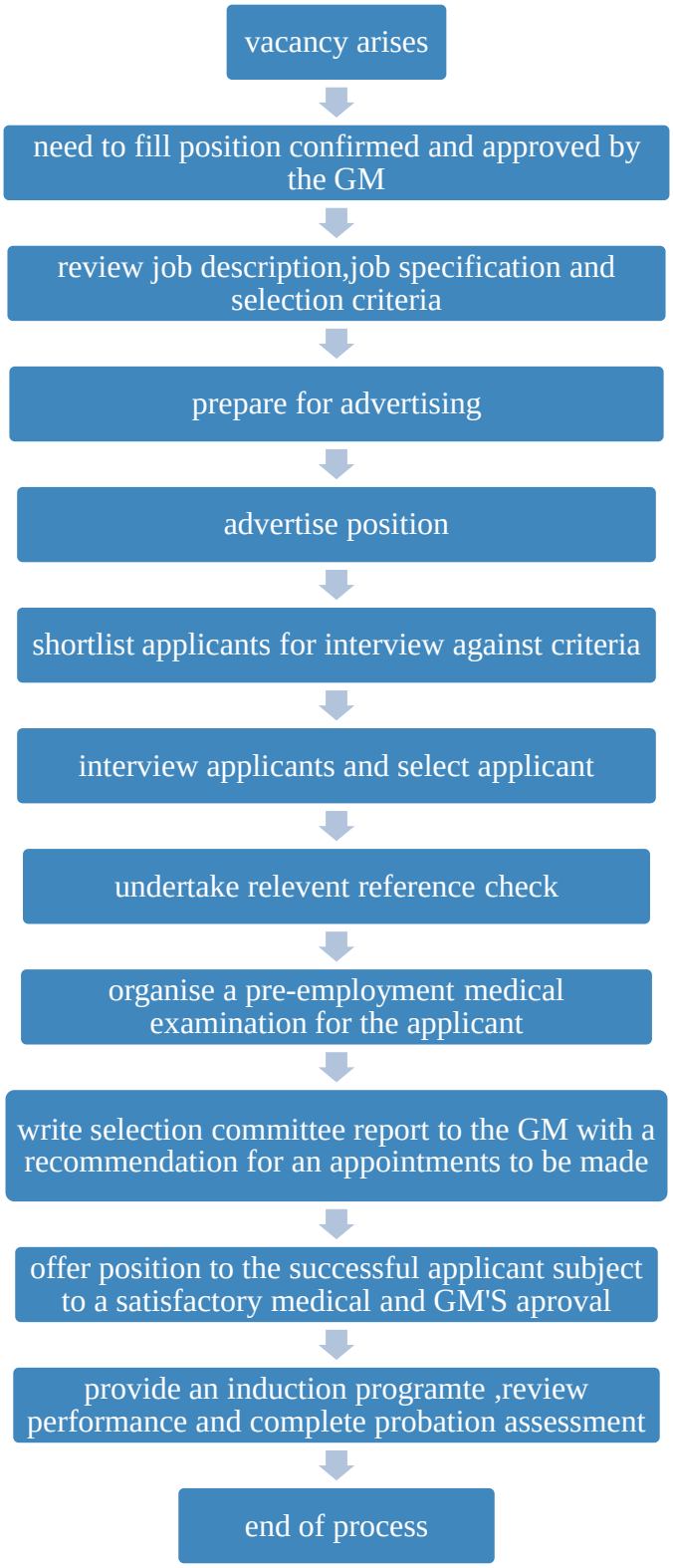
Organogram:

Figure 11 Organogram of organization:



Recruitment/selection flow chart:

Figure 12 Flow chart of recruitment/selection in organization:



2.4.UTILITY SERVICES-

This includes Housekeeping, Laundry and Food Services

2.4.1 House keeping

Introduction:

Housekeeping services play a vital role in providing support services to the staff, patients, administration. The main responsibility of the department is providing clean and hygienic sanitation facilities. It also ensures infection free environment through process and procedure which are reviewed and updated from time to time. They also manage biomedical waste as per the regulation and comply with legal norms. They also play a vital role in safe transport of patients on wheel chair, beds, stretchers which require an alert housekeeping staff to follow safe practices across hospital.

Scope of Services:

The house keeping in SK Soni hospital is outsourced to Gaurav Enterprises on yearly basis.

- Maintaining the aesthetic and cleanliness of all the hospital properties which include inpatient and outpatient areas and building.
- Planning and controlling of all inventories to ensure clean, hygienic and safe environment.
- Systematic collections and disposal of hospital waste.
- Quality sanitary procedure in every area including the sanitary needs of the patient.
- Issuing and controlling replacement of furniture to other departments as per their requirement.
- Accurate and timely meal services for patient and their relatives.
- Safe transportation of patients.

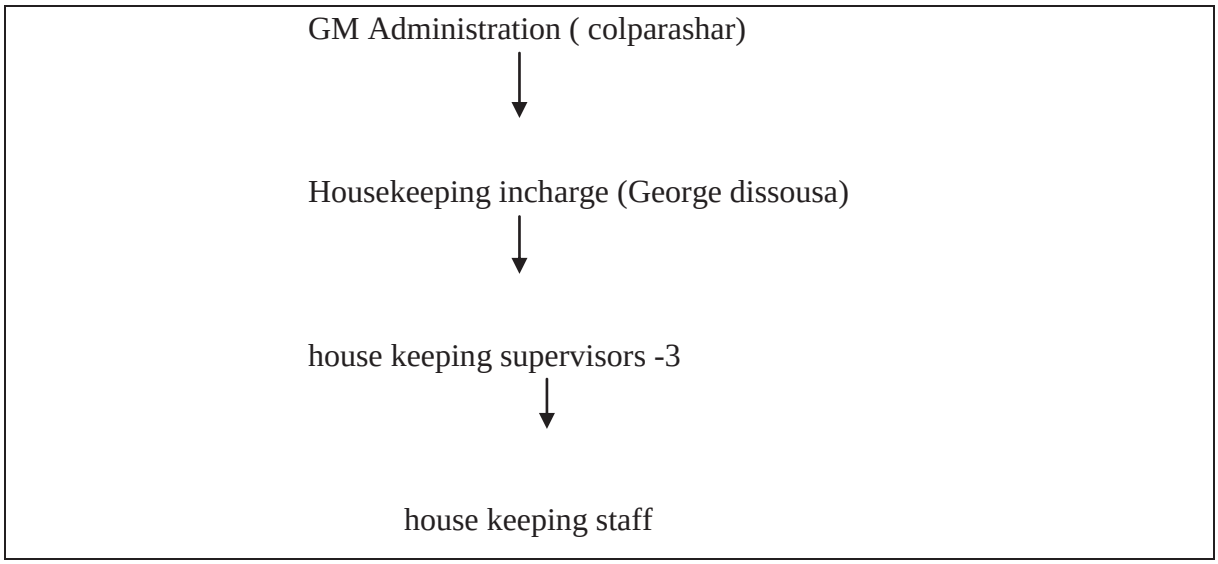
- Pest control management
- High low dusting
- Dry and wet mop
- Bedside cleaning (bed pans, urine bags, spittoons)
- Bathrooms and toilet cleaning
- Tailoring
- Transportation of hospital documents within different departments
- Arranging of water and tea facilities or visitors in the hospital
- Operating mechanical cleaners

Staff:

IN housekeeping there are 150 Sweepers, 70 ward boys, 30 peon ,3plumber, 1 tailor and 1riddle operator. They work two shift of 12 hours from 7 am to 7 pm.

Organogram of housekeeping:

Figure 13 Organogram of housekeeping:



Flow of staff:

Employees are on contract basis

Individual identity cards are given to each staff.

Manual entry and exit is noted at the entry gate by the security staff

Daily checking is done by the supervisor

Identification of housekeeping staff:

For the ease of system and working there are different color codes for dresses of the housekeeping staff.

- Purple color- sweepers
- Grey color- ward boy/ ward lady/ peons
- Brown- patient special attendants.

2.4.2 Laundry services:

Laundry processes include washing (usually with water containing detergents or other chemicals), agitation, rinsing, drying and pressing (ironing). The washing will often be done at a temperature above room temperature to increase the activities of any chemicals used and the solubility of stains, and high temperatures kill micro-organisms that may be present on the fabric.

Chemicals:

Various chemicals may be used to increase the solvent power of water eg: soaap, detergent, alum, chlorine etc . Soap, a compound made from lye and fat , is an ancient and common laundry aid. Modern washing machines typically use synthetic powdered or liquid laundry detergent in place of more traditional soap.

Laundry Service includes the laundering of linen, storage of clean linen and repair and replacement of linen. The importance of a clean, hygienic, un-stained and defect free linen is essential for optimum patient care. Laundry service is responsible for providing an adequate, clean and constant supply of linen to all users. The laundry facilitates is designed, equipped and ventilated to reduce the dissemination of microorganisms on to finished linen. The laundry component is responsible for efficient laundering operations and linen component comprises of procurement, classification, holding, distribution repair and replacement of linen.

Laundry services in SK Soni are outsourced on the yearly contract basis.

It is located in basement near CSSD department.

Scope of Department:

- Sorting, washing, extracting, drying, ironing, folding, mending and delivery of linen.
- Storage and distribution of clean, unstained and defect free linen to various areas of hospitals like floors (for patients), CSSD (for sterile linen supply to operation theaters), housekeeping and food service department (for conference and other functions).
- Cleaning, storage and distribution of uniform to all employees and consultants.
- Specific procedure for handling, including labeling of materials contaminated with hazardous materials or body fluids.
- Policies and procedures for cleaning of contaminated materials.
- Storage and distribution of curtains across the hospital facilities.
- Maintaining the stock of linen and meet the requirements of various departments.

The process flow in department is systematic and with utmost care practices are done. There is an inbuilt chute system at every floor from where laundry bags are stored and transferred directly to the sorting area where the linen is sorted according to the kind. The infected stained linen due to body fluid like blood are segregated. The linen is separated also on the basis of color difference. The OT towels, white towels, OT linen , ICU linen in green and white is separated.

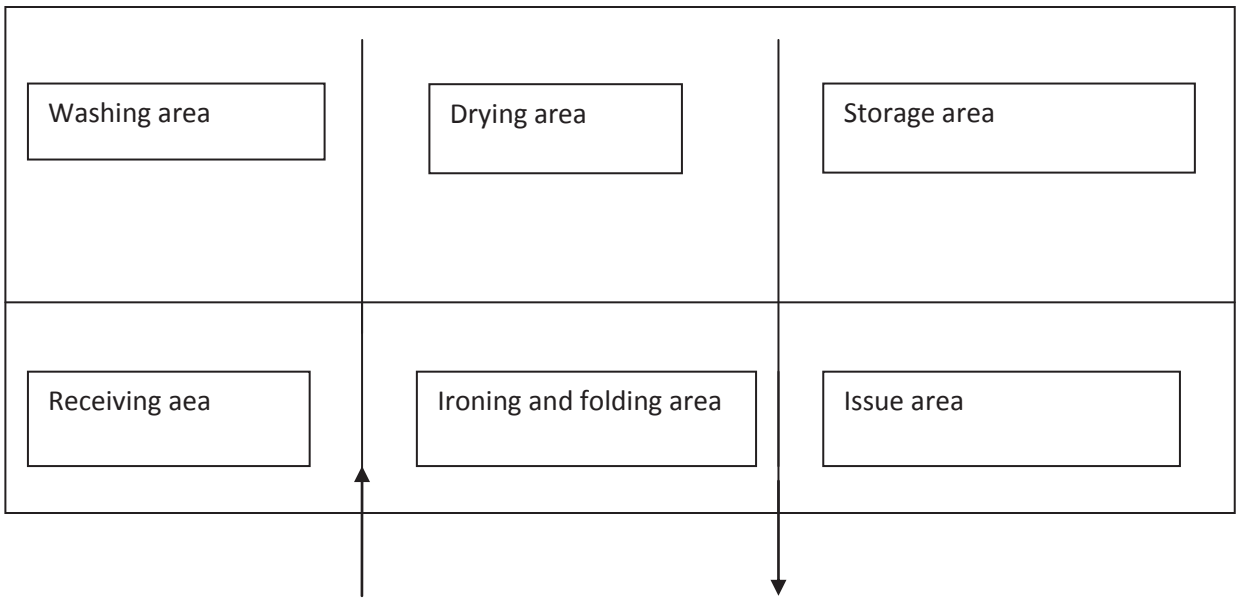
Equipments:

- Washers- 2, Dryers- 2 ,Manual iron- 2, and Roller press- 2.

The washer extractors have special hydro features which spin at high speed and water is extracted, only 4% water is remnant. For soiled white linen there are two cycles: pre-wash cycle consists of two wash cycles in the span of 5 minutes at 50 – 70 degrees, along with detergent, boost and super washing is done. Then oxygen bleach is done. The drained water is monitored and pH check is done in case of any deviation from the neutral pH 7 it is reported immediately. There is also a hygienic barrier. The clothes are ironed with the help of flat work machine, steam presses and rolling and rotation of linen is done.

Layout:

Figure 14 Layout of Laundry department:



Flow process:

Morning 8 am to 10 am is the linen receiving time. The ward boy of specific department comes with linen and linen register.

Gives linen to laundry, sidned by supervisor, and counting of linen is done

sorting of linen is done

washing , drying, iron and folding of linen is done. Ot and icu linen is sent to cssd for sterilization.

Evening 5 to 6 pm is the issue time, so the concerned ward boy of the department come and take the linen and get signed theissue register.

- Laundry maintains the monthly bill for the hospital by counting the number of clothes came from all departments..
- Discard policy for the department-
  - Separate discard register is maintained
  - Then monthly written replace request is made.
  - Then it is given to store.

Staff:

In laundry department one supervisor and six labors works in 3 shifts of 8 hrs each.

2.4.3. Canteen and provision store-

- It is a part of Food Services Department, which looks into maintaining storage and availability of raw materials as per the consumption and menu.
- They maintain buffer stock of 2 days. However it very much depends on shelf life of the item.

- But that for vegetables, mik, curd, daily indent is made depending on next days' menu, a peeling and cutting on such a large scale takes time and stored in fridge in the cooking area.
- Fridge in the store area is to store butter, milk products, fruits and rawa (as worms appear if kept at room temperature).
- Indent for fruits are made twice a week..
- Arrangement in the racks is such that consumption pattern follows FIFO principle.
- Daily cleaning is done and Gel treatment is done weekly.
- Payment for goods received is done by Purchase either weekly, fortnightly or monthly depending on items.
- Menu for the week is prepared :
- For patients : it is suggested by the doctor and then prepared by the dietician.
- Only seasonal vegetables are made in kitchen.
- For staff and attendants: the weekly menu is made by chef and dietician and get it approved by the GM administration. And GM quality.
- Then the food is prepared.
- Quantity of normal and special meals to be served are displayed on the board.
- A full meal contains- rice, chapattis,2 vegetables, dal, curd, salad and sweets.
- Pre cook area- where peeling, cutting, masala grinding occurs on large scale.
- There are 3 cutters in every shift.
- there are 4 deep freezers
- Baking area- where breads, cakes, cookies are baked.
- Cooking area- where cooking actually takes place
- Quality check of the food is done regularly before serving.

Also raw material is also checked before using it, if there is something wrong, menu is changed and replaced according to the availability of items

- STAFF- 34

- 1 patient chef
- 1 bulk cooking chef (for staff)
- 1 chef for snacks
- 1 store keeper
- 1 operation manager
- 4 supervisors
- 14 steward
- 5 dishwasher
- 1 housekeeping

- There are 3 shifts running :6 am to 4 pm , 12 pm to 10 pm and 10 pm to 6 pm.

Staff in each shift

- 4 stewards and 2 supervisors in morning and evening shift.
- 2 stewards and 1 supervisors in the night shift

Process flow-

After doctors visit dietician goes to every bed of patient and take the notes of diet recommendations (2 times a day)

Noting of special diets as- liquid diet, semisolid, solid diet or with/without salt diet.

Scrutiny and classification according to the type of diet

Diet chart is given to the chef

Cooking is done

Food is kept in the trays in a closed trolley, in which the token for each bed is kept,

According to which food is served for each bed.

↓

Stewards provide the food to each patient according to the tokens and get the token signed by the nursing staff on duty

↓

Once diet is served to patients, dieticians again ask for patient satisfaction for food.

Menu for next diet is made or received during the serve of previous meal.

2.4.4. Biomedical engineering and maintenance-

It is the department which is responsible for maintenance of all the biomedical equipments and machines used. They are required to immediately attend to breakdowns and failures to minimize the downtime of the machine.

Organogram- Biomedical engineering department:

Medicalsuperintendent

↓

Deputy medical superintendent

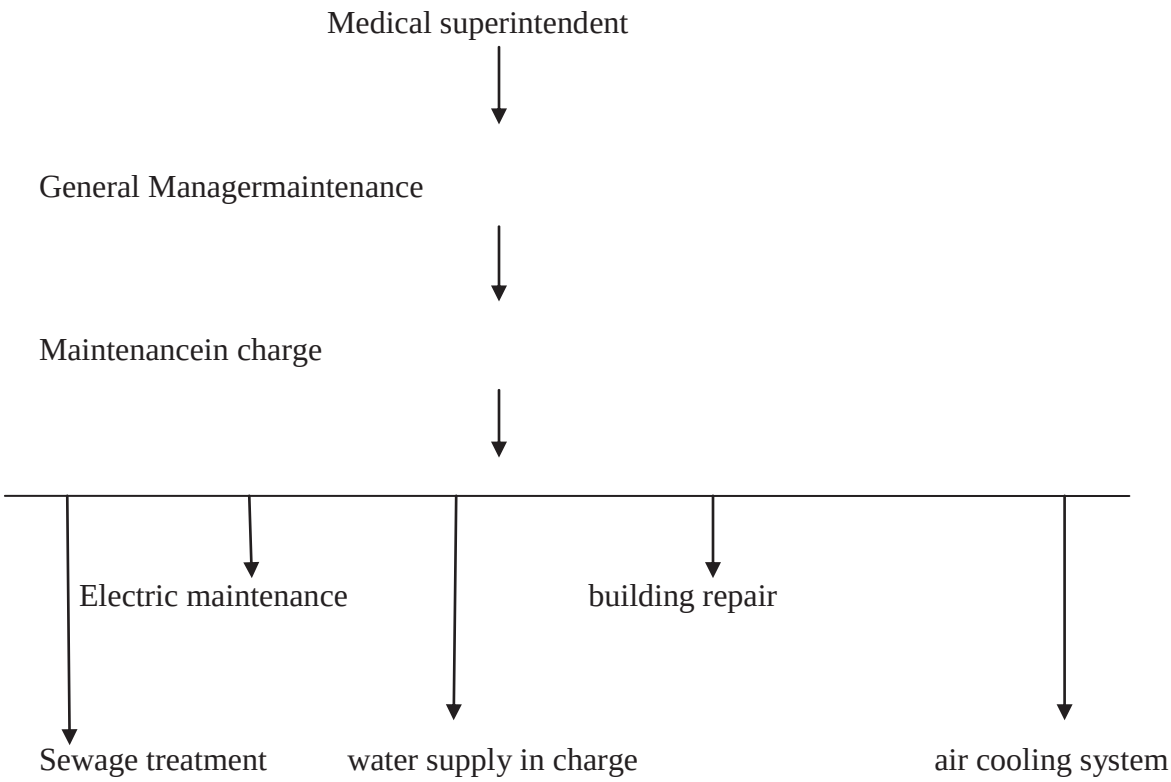
↓

Biomedical engineer

Staff:

There is one biomedical engineer.

Organogram:maintenancedepartment:



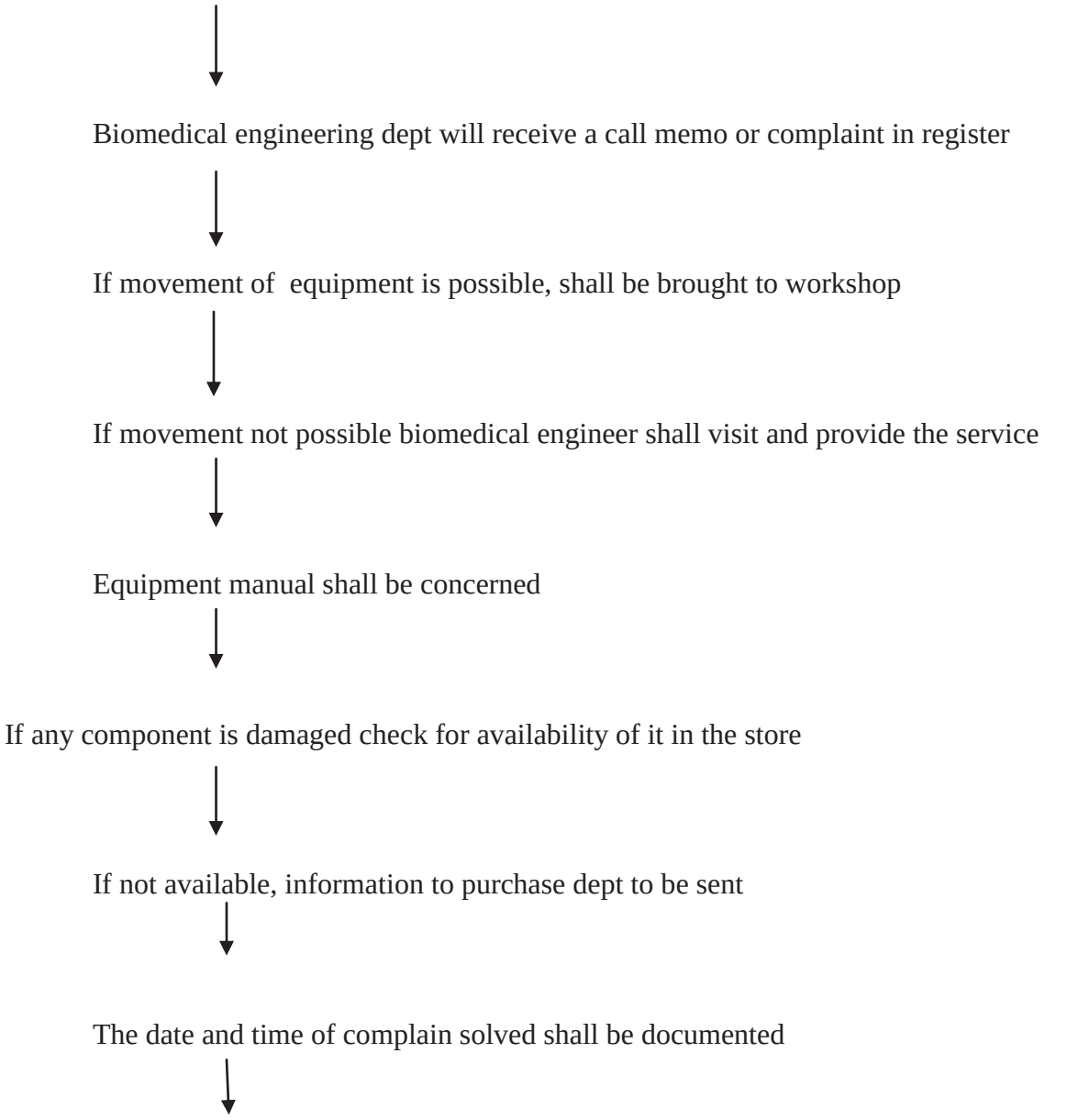
Staff:

Table 6 Staff of biomedical engineering and maintenance department:

Maintenancein charge	1
STP operator	1
Electricians	3
Plumber	1
Mason	2
Painter	2
Welder	2
Carpenter	2

Work flow-

Figure 15- Work flow of Biomedical engineering and maintenance:



Responsibility o biomedical engineer:

- All equipments are checked by the biomedical engineer prior o use.
- Should identify the need to prepare list of major equipments.
- There should be a standby provision for all life savingmjorequipments.

Workflow of maintenance:

Every day in the morning, maintenance personnel take round of each department

Note the complain in complain register and get it signed by the in charge

Complain relating technician will go to the respective department, rectify and treat the fault

Date and time of complain received and treated should be entered and signed.

- In urgent, complaints are also received telephonically and rectified.
  - If the machine is to be taken to Company for servicing, returnable gate pass is issued.
  - If machine is to be returned to Company for replacement, non returnable gate pass is issued.
  - In warranty period Company person is called for maintenance and breakdowns from BMD.
  - Every 6 months , quality assurance and calibration is done
  - Maintenance is done 3 monthly.
  - For Laboratory machines, calibration is done regularly.

2.4.5 Security services:

The security services in SK Soni hospital are outsourced toBalaji Industrial Security Services.

Total staff: 37

- Staff works in 2 shifts of 12 hrs.
- 2 supervisors in each shift

  .

  SCOPE OF SERVICES

  - Checks on the movement of patients and attendant
  - Guards the lift
  - Security check for the incoming and outgoing supplies.
  - Monitoring the movement of staff.
  - Entering the time, date and signature of the visitors and staff.
  - Management of hospital codes- fire, external disaster, cardiac arrest, child abduction.