Summer training

At

Santokba Durlabhji Memorial Hospital,

Jaipur

From 10th May'2021 to 2nd July'2021

A Report

By

MONIKA MAINANI

MBA in HOSPITAL MANAGEMENT

2020-2022

ACKNOWLEDGEMENT

Words in my concordance fail to expound my heartfelt sense of reverence and indebtness to my major advisor Dr.Kriti Tambi, Assistant Medical Supritendent at Santoka Durlabhji Memorial Hospital,Jaipur for her inspiring guidance, outstanding cooperation and constant encouragement. Her staunch support,critical appreciation and concern gave anextra element of confidence to my work.

I express my sincere acknowledgement to my co-mentor Mrs.Shailja Ahuja, Quality Manager of Santoka Durlabhji Memorial hospital and her staff Ms Swapnil Sinha, Mr.Giriraj and Mr.Ayush for all the cooperation and providing model environment in the hospital.

I feel highly ecstatic to extend my sincere gratitude to my University Mentor Mr.Dhirendra Kumar,Professor, IIHMR UNIVERSITY,Jaipur for his constant encouragement, guidance and inspiration.

Monika Mainani

MBA -HOSPITAL AND HEALTH MANAGEMENT

IIHMR UNIVERSITY, JAIPUR

BATCH 2020-2022

Santokba Durlabhji Memorial Hospital
cum Medical Research Institute

sdmh
the hospital that cares
Bhawani Singh Marg, Jaipur-302015

Your Ref. :

Our Ref. :

Date .....

No. 3274

09.07.2021

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Monika Mainani has successfully completed her 2 months Summer Internship programme in our Hospital, from 10.05.2021 to 02.07.2021. During her stay with us her work and conduct was good.

SDMH wishes her success in future.

ASSISTANT MEDICALSUPERINTENDENT

Asstt. Medical Superintendent
Santokba Durlabhji Memorial Hospital
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www.sdmh.in www.youtube.com/user/SDMHCARE

Table of Contents:

Abbreviations Used:

1. IPD- In Patient Department
2. OPD- Out patient Department
3. LIS- Lab information System
4. ICU- Intensive Care Unit
5. FIFO- First In First Out
6. LAMA- Leave Against Medical Advice
7. OT- Operation Theatre
8. UHID No. - Unique Hospital Identification No.
9. MRD- Medical Record Department
10. TAT – Turn Around Time

Hospital Profile:

History

Santokba Durlabhji Memorial hospital is a trust-governed, autonomous, fee for service, non-profit, multidisciplinary, private hospital, which explicated by vulnerable family patriarch, the late Padamshri Khailshanker Durlabhji. Lt. PK Durlabhji had devotion and comiseration to deliver inexpensive health-care to the people of rajas than which would be second to none in the country.

The Santoka Durblanji Memorial hospital was established in year 1971 and was inaugurated by late Smt. Indra Gandhi. It is located in the heart of pink city-Jaipur, the hospital premises 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, pharmacy stores, diary booth, in patient attendant complex- dharamshala and other living utility facilities.

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 a NABH certified hospital, NABL certified lab and NABH certified Blood Bank with bed capacity of 525 beds.

Catchment area

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

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

Santoka Durabhji Memorial Hospital holds a vision that it aims to be a unified quadruple healthcare hub for delivery of quality medical and health care along with affordable and inexpensive in an economically viable, country wide and around the globe positioned institutional environment.

MISSION

The hospital cares. Santokba Durabhji Memorial Hospital is committed to contributing quality health care services at the most economical and feasible rates to all the sections of the society, irrespective of caste,

creed or color. To make this commitment possible, the SDMH Team has pledged to put in all its efforts and contribute whole of their energy.

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 and generate and set a benchmark for healthcare delivery standards; will make the best use of medical science and technology in an order to maximize and promote the favors of health without concomitant risks.

SCOPE OF SERVICES

CLINICAL SERVICES

The clinical services Available at SDMH, Jaipur are:

- Anaesthesia
- Dentistry
- Dermatology
- Dietetics and Nutrition
- Cardiology
- Cardiothoracic Surgery
- Critical Care medicine
- Gastroenterology
- Gastro Intestinal Surgery
- General Medicine
- General Surgery
- Geriatric Medicine
- ENT
- Executive health check up
- Obstetrics and Gynecology
- Ophthalmology
- Orthopedics
- Nephrology
- Neurology
- Neuro Surgery
- Paediatrics and Neonatology
- Paediatric surgery
- Paediatric Neurology
- Paediatric Cardiology

- Physiotherapy
- Plastic surgery
- Psychiatry
- Pulmonary Medicine (Chest & T.B
- Rehabilitation
- Speech Therapy & Audiology
- Urology
- Vitreo Retinal

24-Hour Services

Services that are available 24 x 7 in the hospital include:

- 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 I.C.U
- Cardiac Medical – II I.C.U
- Cardiac Surgical Intensive Care Unit
- Gastro ICU
- Medical HDU
- Medical Intensive Care Unit
- Neuro Intensive Care Unit
- Neurosurgery ICU
- Pulmonary ICU
- Surgical Intensive Care Unit
- SIDSS ICU
- Paediatric Intensive Care Unit
- Neonatal Intensive Care Unit (IPU & PCU)

OUT PATIENT DEPARTMENT

Outpatient department is a part of the hospital with allotted physical facilities and medical staff and other clinical staff in sufficient number with regularly scheduled hours, for providing care to those patients who are not registered or admitted as-In Patient . The Out Patient Department services provide the main linkage of the hospital with the community.

Main purpose of OPD

Ambulatory medical care is provided to those patients who are not bedridden and can seek care or consultations 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

To avail the facilities offered at the Santoka Durlabhji Memorial hospital, the patient should be registered himself/herself at the main reception. The IPD registration service facility is functional 24 hours and the form for the same is to be filled up and handed over at the counter itself. All the information provided in the registration form should be appropriate and true to best of patient's/attendant knowledge.

It is highly recommended to write patient's details as per legal documents to avoid any 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 mpatient 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**.**

General Finding 1 :

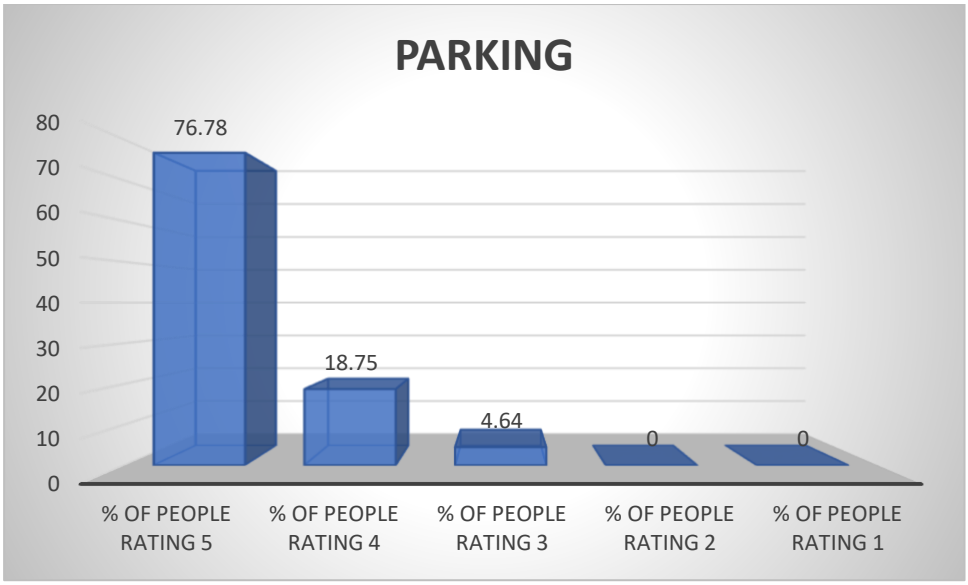
A survey for patient's Happiness Index in OPD was conducted to work on the betterment of the services provided by the hospital.

Mode of data collection: the data was collected through a survey feedback form. The sample size of the data collected is 122. The patient or his attendant was asked to rate the services starting from 1 to number 5, where the ratings are interpreted as follows

Rating	Interpretation
1☹☹	Very poor
2☹	Poor
3😐	Average
4☺	Good
5☺☺	Excellent

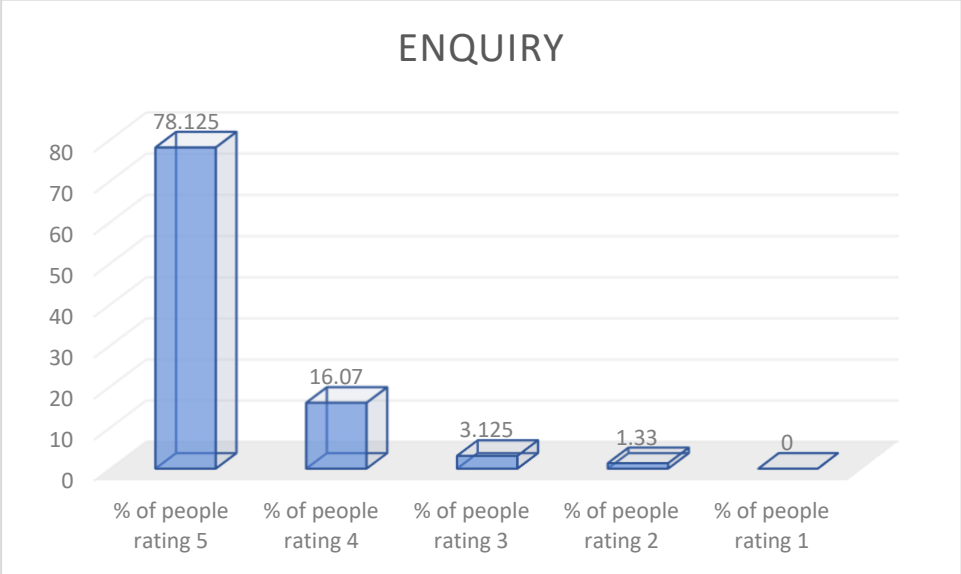
The survey feedback form had the following services:

1. Parking
- Availability of parking
- Staff behaviour



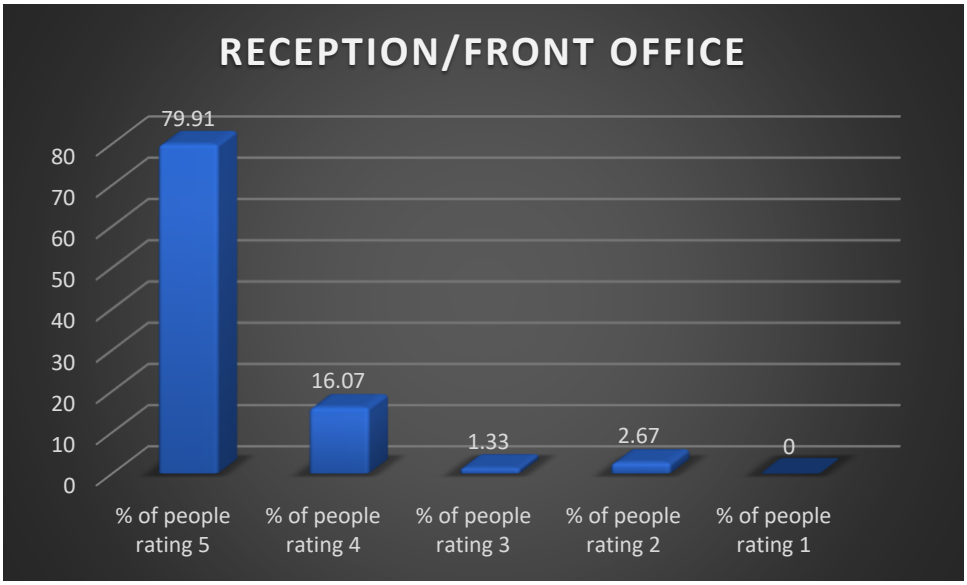
Scarcity of space for four wheeler parking on some days was observed.

2. Enquiry
- Assistance for wheelchair/trolleys
- Queries addressed well

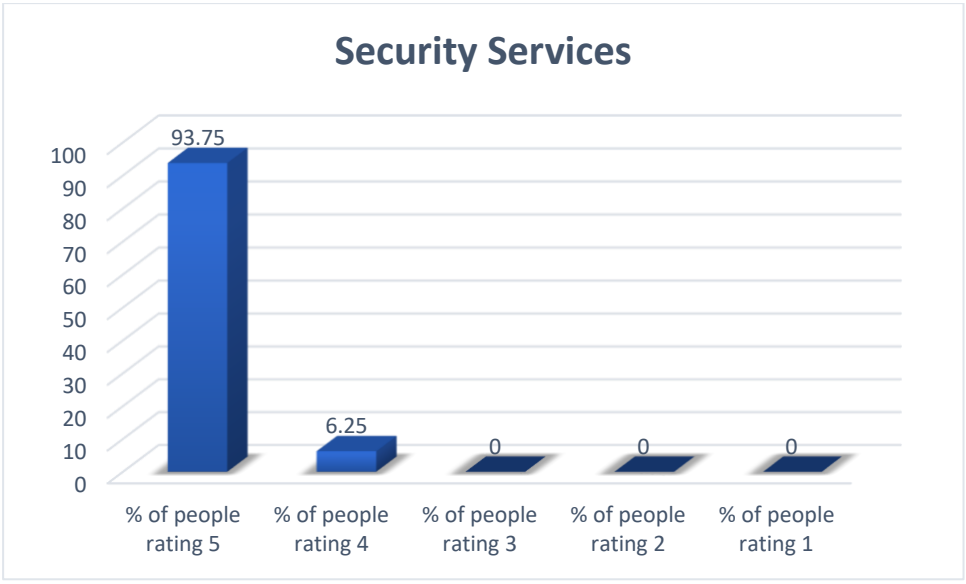


3. Reception/front office
- Staff behaviour

- Queries answered well

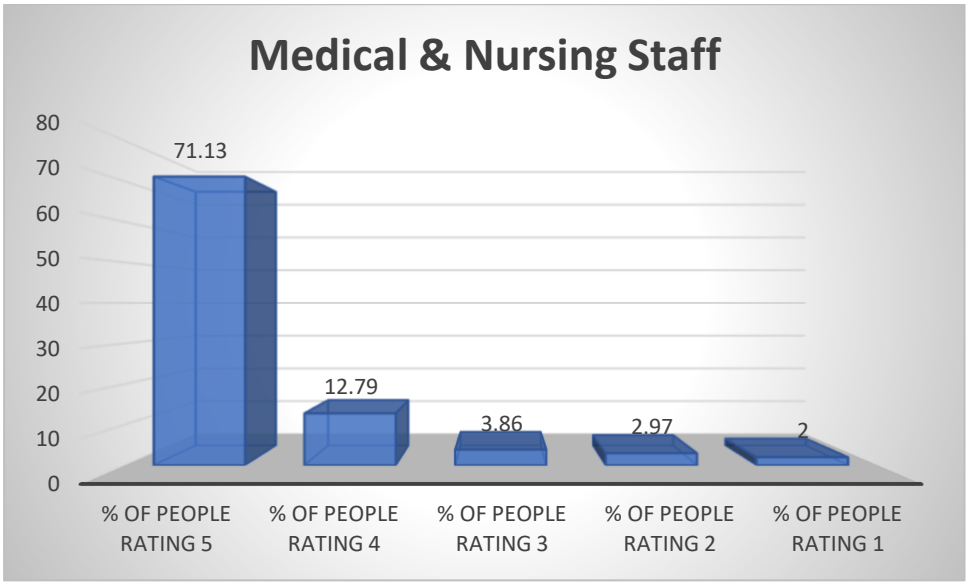


4. Security Services
- Staff Behaviour
- Queries regarding directions answered well



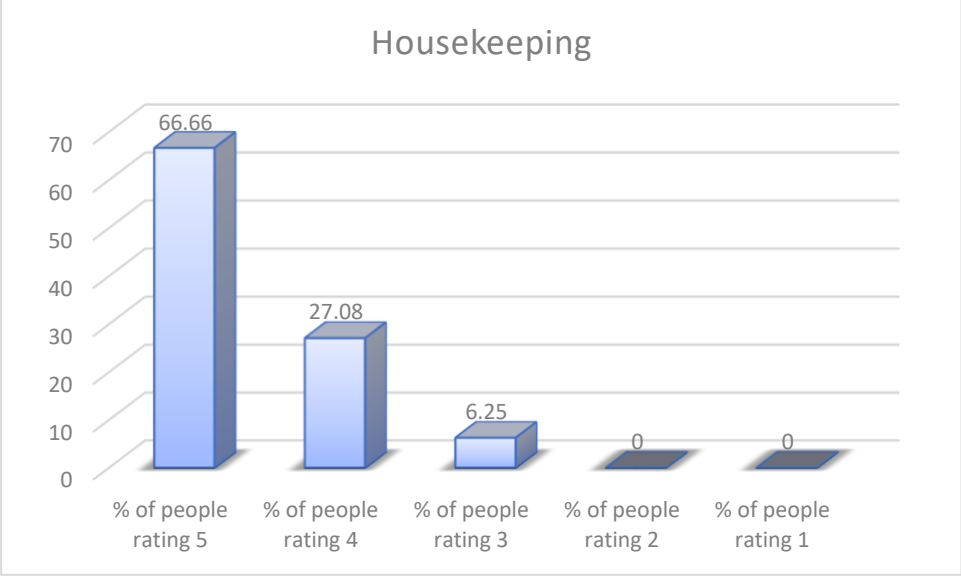
5. Medical & Nursing Aid

- Queries well addressed by nursing staff
- Explained about medical condition, cost of treatment and treatment plan

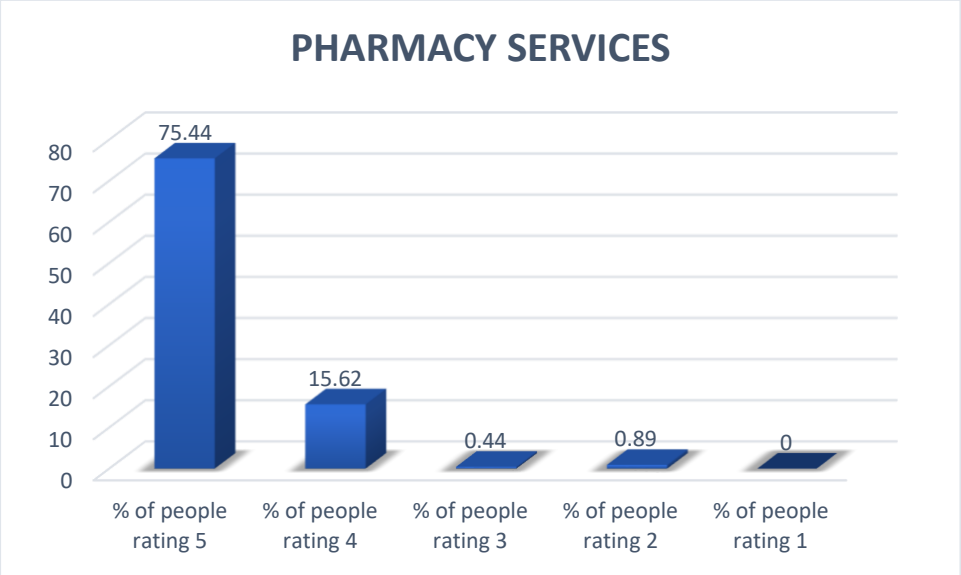


6. Housekeeping

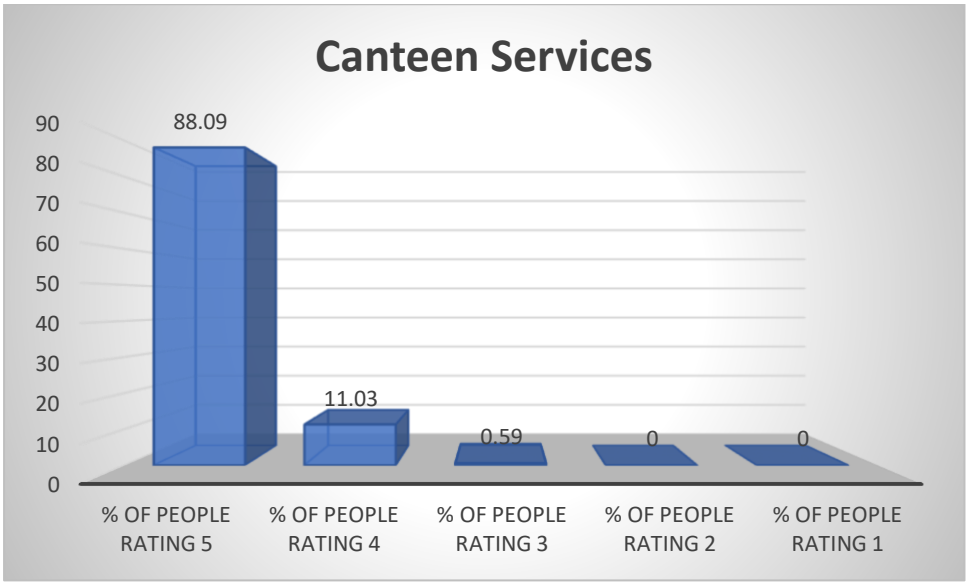
- Cleanliness in hospital/waiting area
- Clean washrooms
- Staff behaviour



7. Pharmacy
    - Availability of all drugs/medicines
    - Received medicine on time

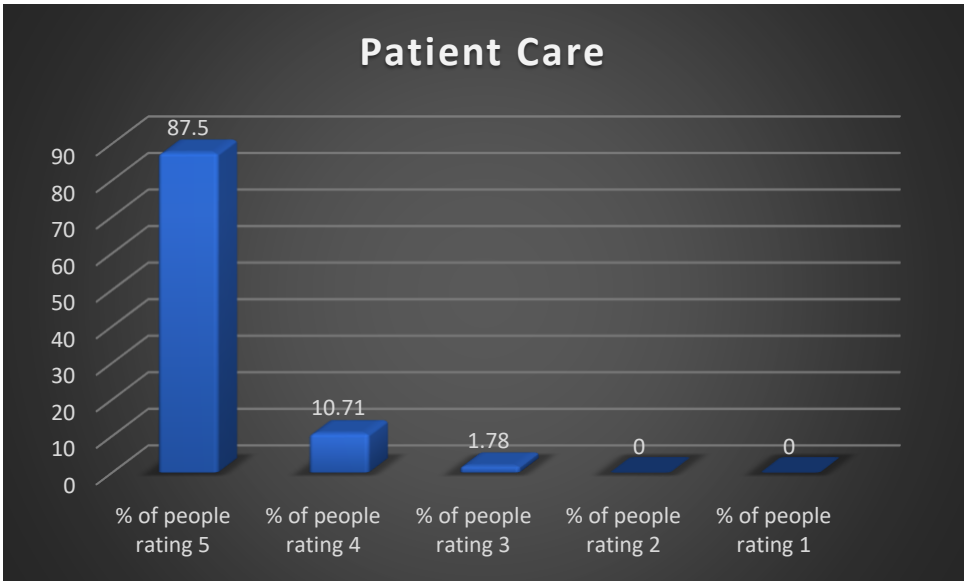


8. Canteen services
    - Services easily accessible
    - Quality of food
    - Availability of required items



9. Patient Care

- Satisfied with the consultations



CONCLUSIONS :

- ✓ On a few busy days, parking lots for four wheelers were full which caused inconvenience to patients and their attendant. To work out this shortage of parking space an extra floor had been used for parking. Also the parking staff was conveyed to get the vehicles aligned in minimum space.
- ✓ Waiting time for a few doctors in OPD was minimum of 1 hour while maximum of 2 hours. The reason behind the delay is that doctors sometimes get occupied with patients in IPD or emergency.
- ✓ The pharmacy sometimes had a long waiting queue to purchase medicines.
- ✓ In OPD the canteen area did not have functional air conditioners which made it difficult for the attendants to avail its services on a hot summer day. The air conditioners were repaired on informing the management.
- ✓ Hand sanitizers in the OPD waiting area were installed after it was brought in management's notice.

IN PATIENT DEPARTMENT

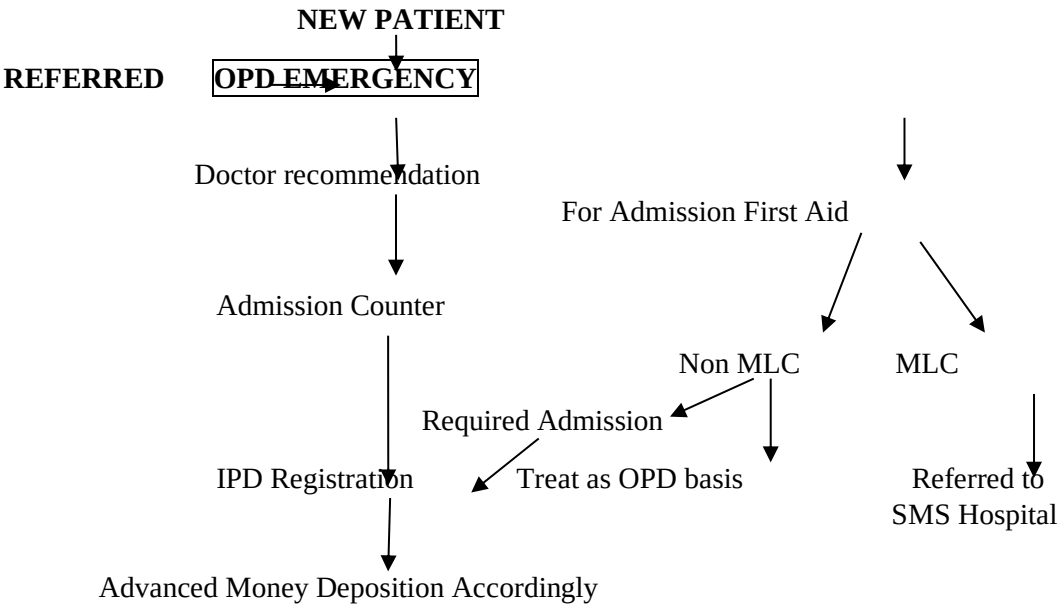
In Door Patient Department caters the services for patients who require continues observation and supervision of experts, acute & intensive medical care and emergencies. In SDMH there is separate IPD Building which has four floors and a basement. Floor wise distribution is as follows:

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

Flow of Patient in IPD

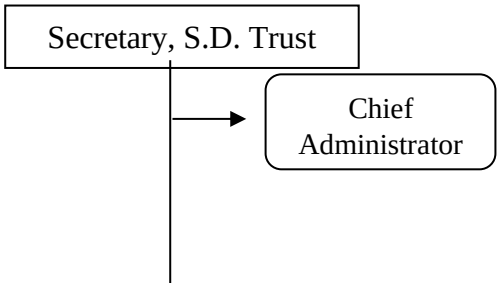


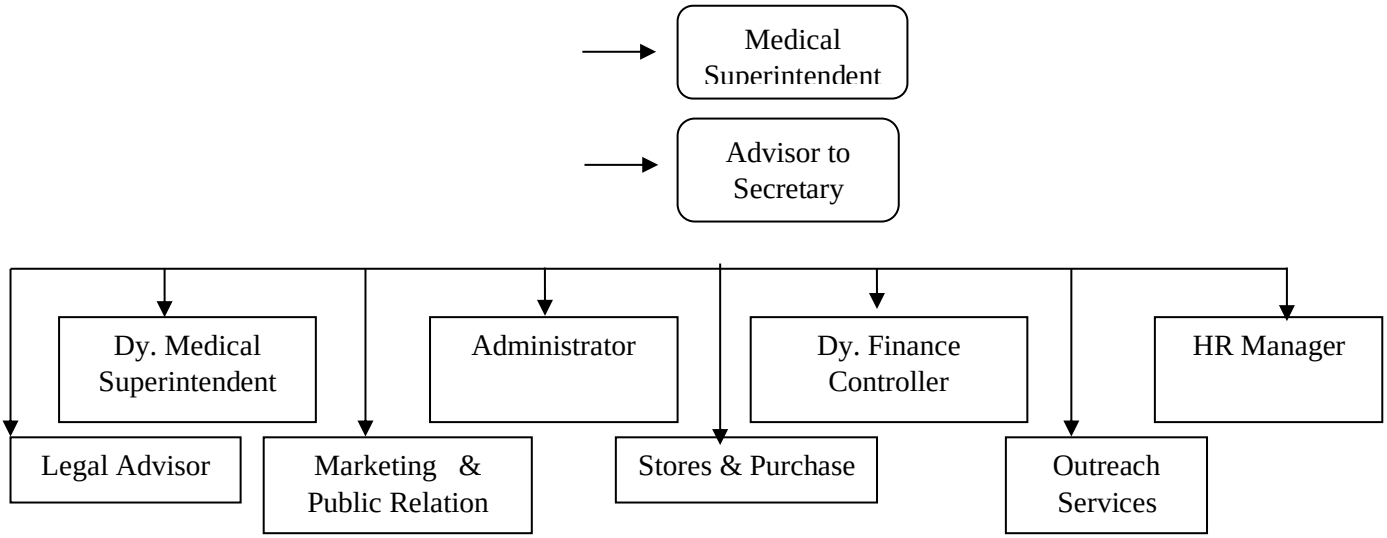
Library-The library is situated in the basement of the IPD building. It is fully Air conditioning. Timing of this is from 9.00Am to 7.00Pm.there is attached computer room for students and faculty that have internet facilities. There are various types of the medical books, international& national journals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

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





General Finding – 2

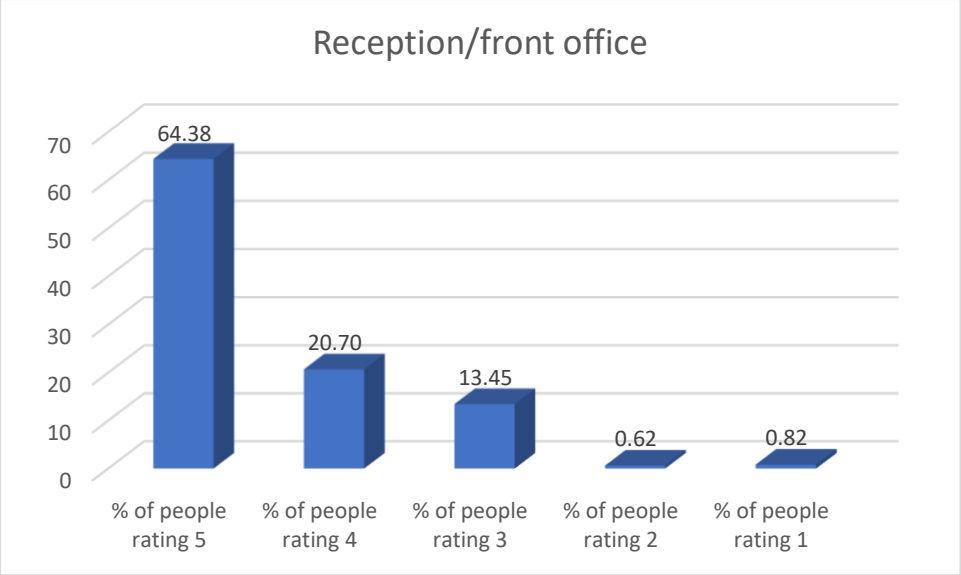
A survey to assess patient's Happiness Index in IPD was conducted.

Mode of data collection: the data was collected through a survey feedback form. The sample size of the data collected is 161. The patient or his attendant was asked to rate the services starting from 1 to number 5, where the ratings are interpreted as follows

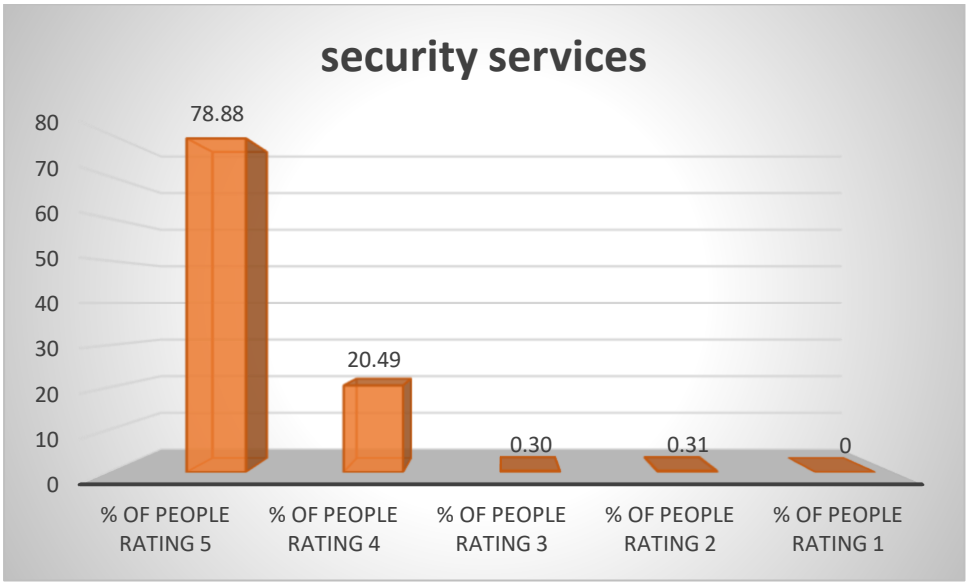
Rating	Interpretation
1☹☹	Very poor
2☹	Poor
3😐	Average
4☺	Good
5☺☺	Excellent

The feedback form included the following services:

1. Reception/front office
   - Staff behaviour
   - Appropriate financial counselling
   - Queries addressed

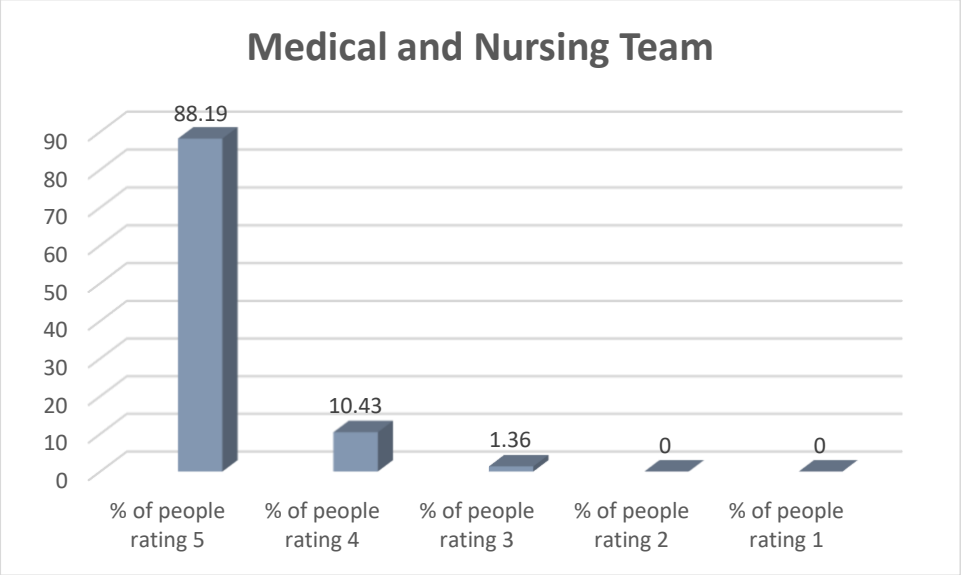


2. Security services
- Staff behaviour
- Well addressed queries regarding directions

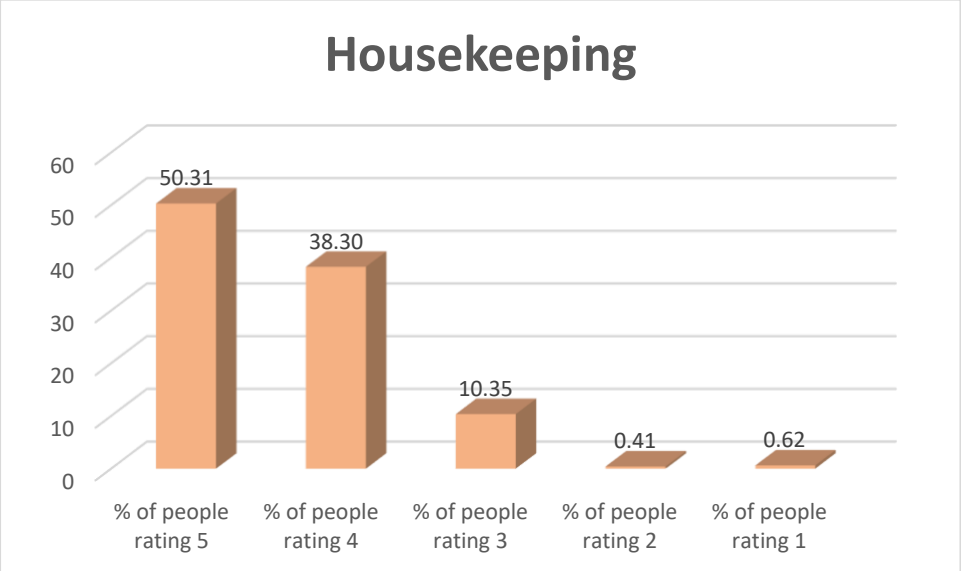


3. Medical and Nursing Team
- Staff behavior

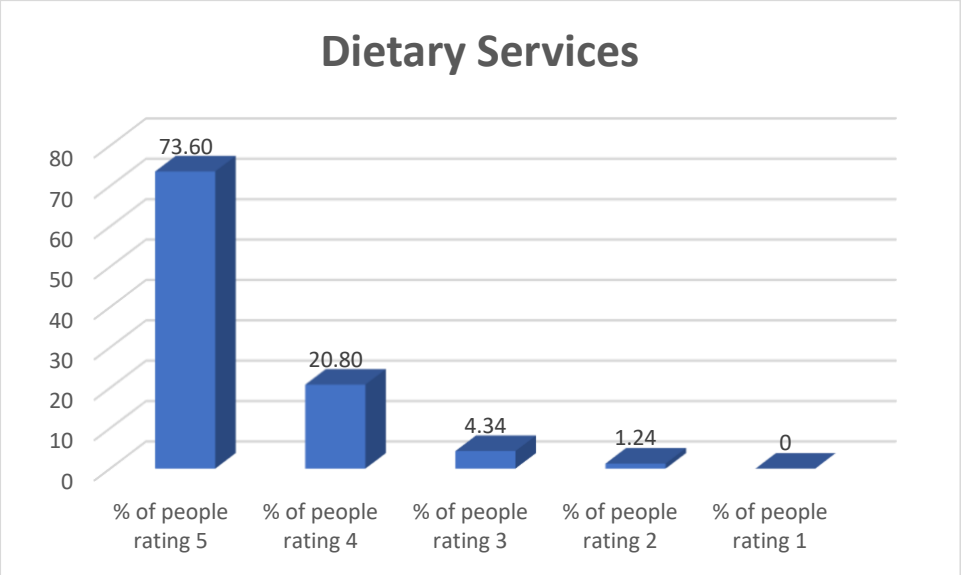
- Attentive and sensitive to patient's need
- Efficient and Prompt
- Queries addressed well
- Doctor visiting daily
- Family informed about patient's medical condition



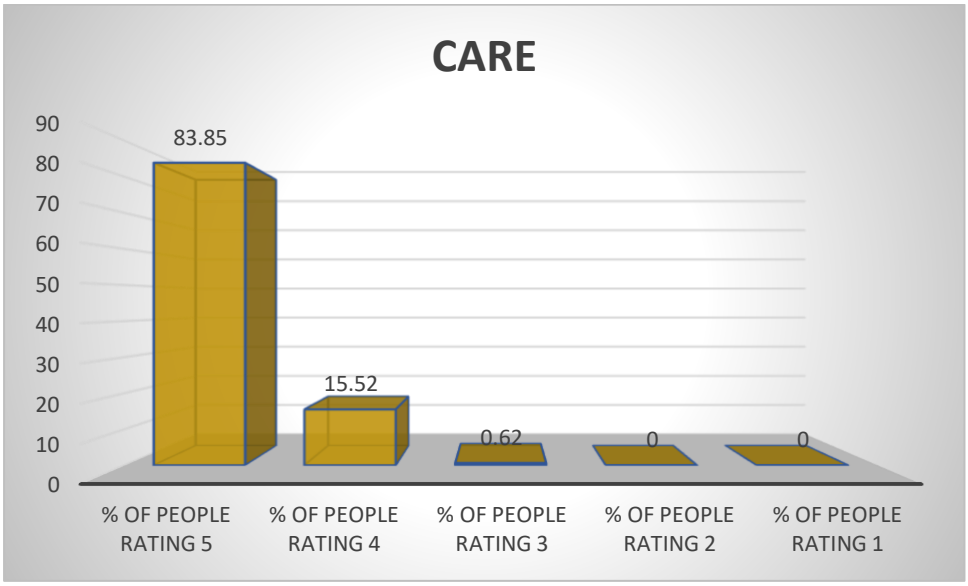
4. Housekeeping
- Ward and rooms clean
- Clean washrooms
- Staff behaviour



5. Dietary services
   - Received meal on time
   - Quality of meal
   - Quantity of meal

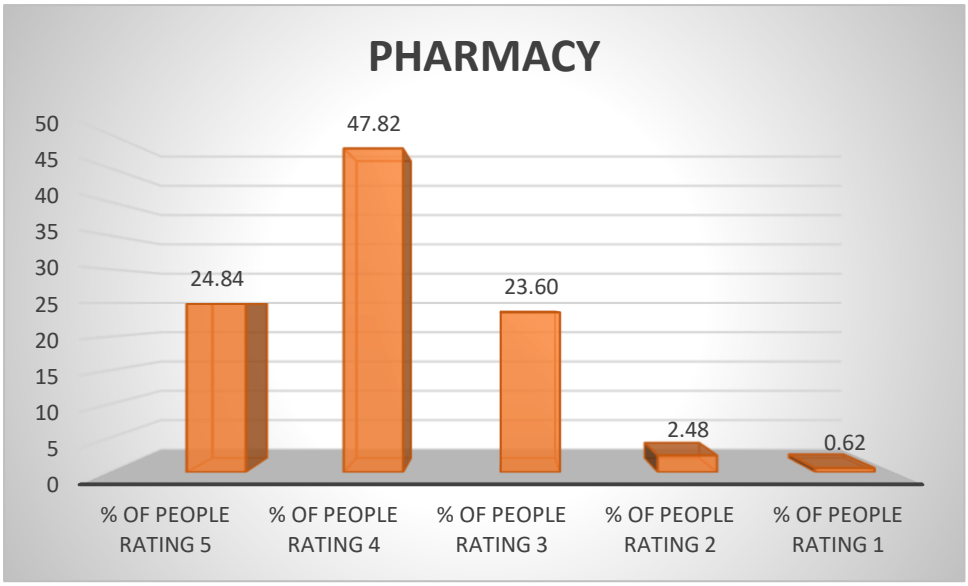


6. Patient Care
   - Satisfaction with patient care



7. Pharmacy
   - Receiving medicines on time

- Satisfaction score



CONCLUSION:

- ✓ Attendants were not satisfied with the financial counseling provided while patient's admission. The counseling team was given guidance to improve the same.
- ✓ The billing section started sending Provisional bills to attendant's registered mobile number to keep them updated with the due charges of the hospital.
- ✓ Patients in the ward had been frequently complaining that the washrooms stink, inspite of being clean. Therefore, the frequency of washroom cleaning was increased and air freshners were used in the washroom.
- ✓ The lunch for a few patients used to get delayed by 30mins-45mins. Thus, to keep pace with time kitchen staff started meal plating at 12 which was initiated by 12:30 earlier.
- ✓ The pharmacy service of bedside medicines delivery took atleast 2-3 hours.

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 Oxymeter
- Suction

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, O_2 cylinder, and emergency medicine...etc one of them are donated by State Bank of Bikaner & Jaipur.

Hospital Management Information System

The hospital has its 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

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.

DISCHARGE

- The process of discharge can be initiated only after the patient's consultant deems him/her fit for the discharge.
- Discharges are done before 12:00 p.m.
- If a patient does not want to continue his/her stay at the hospital and wishes to leave, he can, in consultation with his doctor, ask for the Leave Against Medical Advice (LAMA)/ DORAMA
- Before leaving the hospital, 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 from the hospital, the patient's attendant can draft a request at the nursing counter or the reception counter.
- When the patient is being discharged from the hospital, the concerned doctor and nurse, dietician, pharmacies will explain the treatment plan which should be followed.
- For nutritional queries dietician can be consulted.

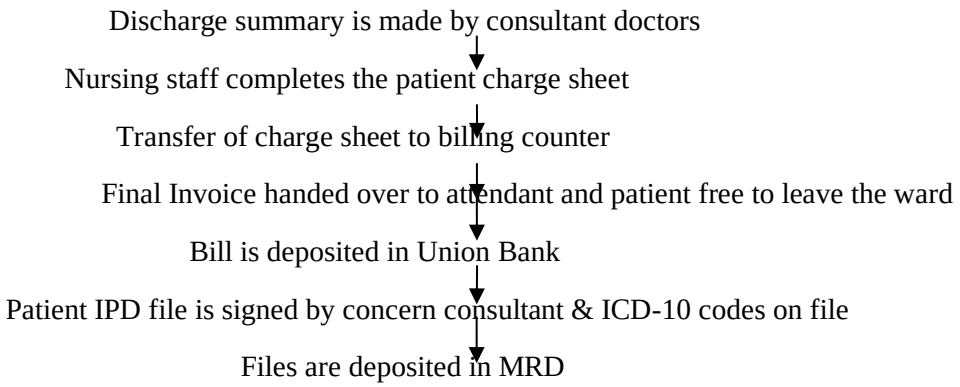
GENERAL FINDING-3

Identify the causes of delayed discharges

According to National Accreditation Board of Hospitals and Healthcare Providers, "Discharge is a process by which a patient is shifted out from the hospital with all concerned medical summaries ensuring stability. The discharge process is deemed to have started when the consultant formally approves discharge and ends with the patient leaving the clinical unit.

The discharge process in a hospital is one of the time consuming process. The time taken in discharging a patient by a hospital is an important indicator of quality of care and patient satisfaction.

Discharge Process & Documentation:-



OBJECTIVES:

i. **To identify the reasons for delayed discharges**
ii. **To Reduce the Turn Around Time (TAT) for discharges.**

Source of data: The mode of data collection is the primary source by recording the observations.

PROCESS:

step 1:

- A pilot study of 10 days(from 25th may- 5th june) was conducted to calculate the average time taken for a discharge at SDMH, Jaipur. The data was collected from- general medicine ward, cardiac ward, nephrology ward, neurology ward, gastro-intestinal surgery ward and Paediatrics ward.

step 2:

- time taken for discharges from the ward was calculated. It included time taken for billing and time taken for prepartion of the discharge summary.
- average time taken for discharge was calculated for different wards.

step 3:

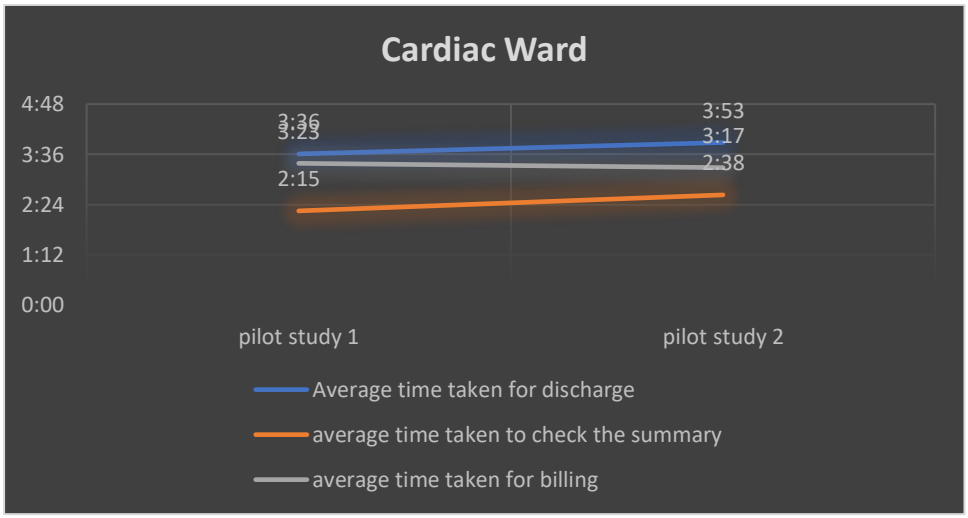
- reasons for delay in discharge were identified and the following measures were taken.
- patients who donot have any pharmacy account could directly collect bill from the billing section without getting no dues signature from the hospital pharmacy.
- discahrge summaries were maintained as soon as the patient is admitted to the ward and gets the investigations done. Discharge summaries were maintained and updated regularly.

step 4:

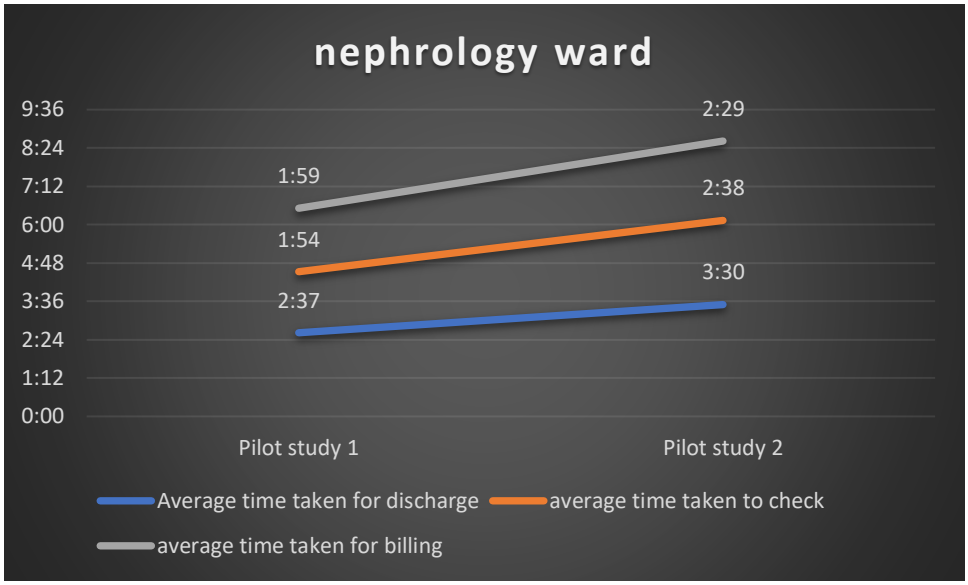
- After suggesting measures for speeding up the discharge process, again a pilot study was conducted for 10 days (from 10th june-20th June).
- The time taken for discharges for different wards was calculated. Average time for discharges for different wards was calculated. The average time taken for discharge in Pilot study 1 was compared to the average time taken for discharge in Pilot study 2.

Graphical representation of average time taken for discharge, average time taken for billing and average time taken for discharge summary preparation:

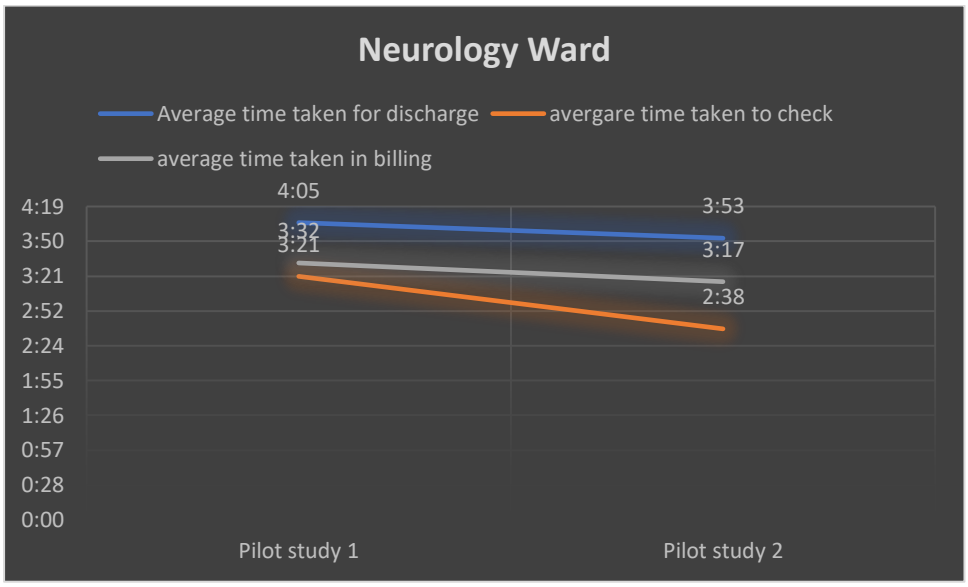
1. **Cardiac ward**



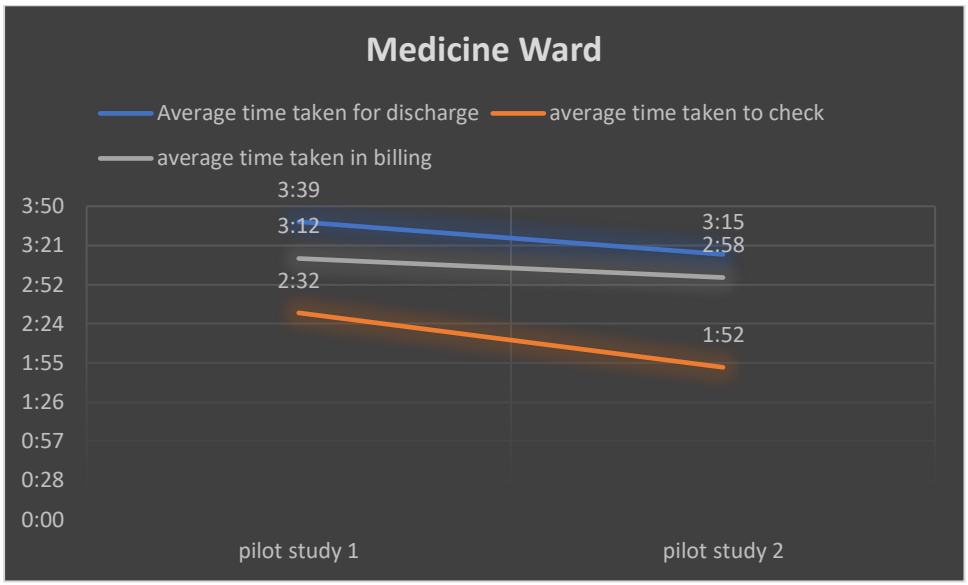
2. Nephrology ward



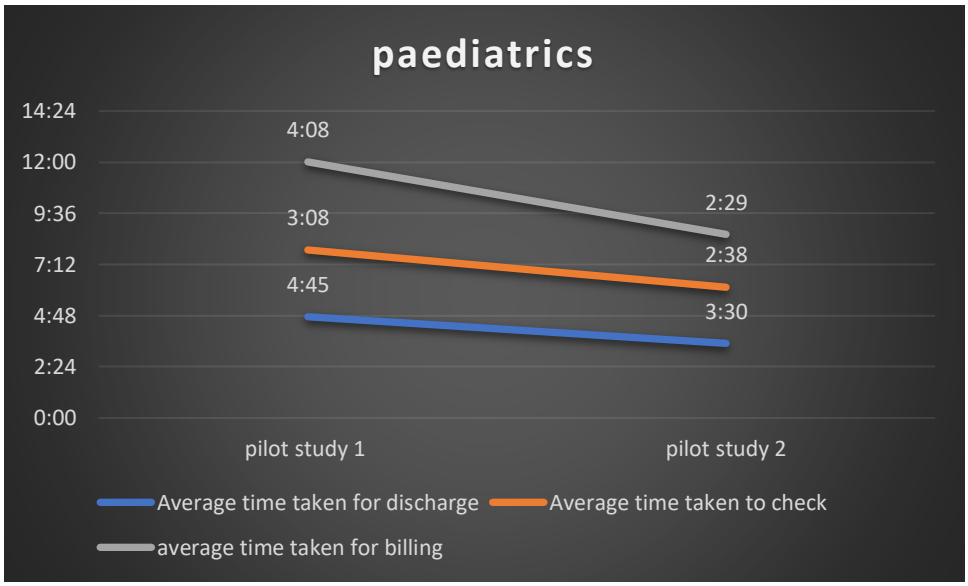
3. Neurology ward



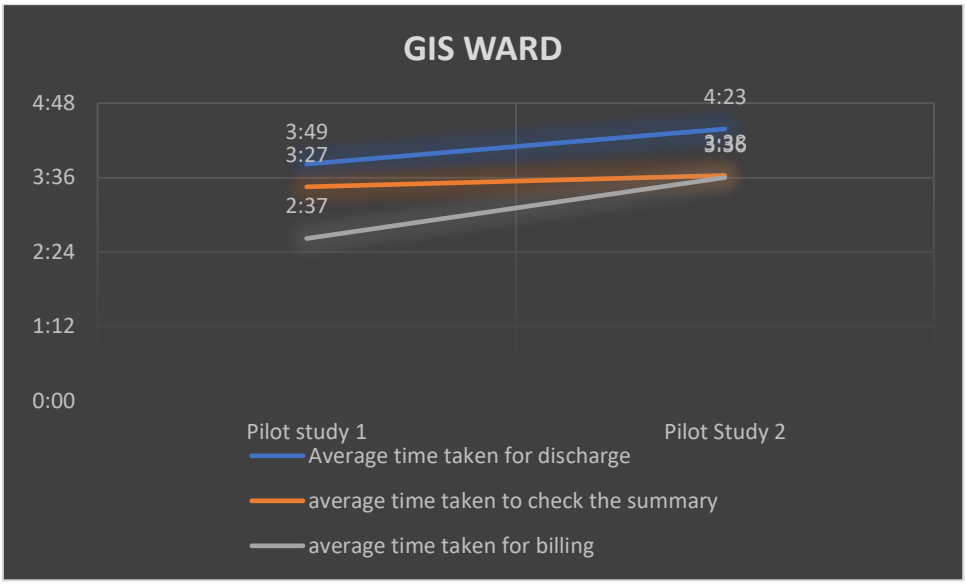
4. **Medicine ward**



5. **Pediatrics ward**



6. GIS ward



On comparing the average time calculated in pilot study 1 and pilot study 2, it was observed that no commendable time difference was observed.

Thus a meeting was held with clinical staff of the entire hospital and was lead by Mrs.Shailja Ahuja, Quality Manager and Quality Assurance Co-ordinator.

Summarizing the entire meeting with clinical staff held on 2nd July'2021- Friday and was lead **Shailja Ahuja Mam.**

The following amendments were made in the discharge process of the hospital to make discharge a time-efficient process.

- Software for speeding up discharge summary process is being developed which will have a basic template for summary to be prepared. Different templates for different departments will be designed with the help of LDCs and it can be modified as and when required. Thus along with making it time efficient, it is kept in mind that the software has to be user-friendly.
- We are planning to send billing sheets through fax machines- one per floor- to fill up the gap of manpower(requirement of a ward boy was laid for sending billing sheets to billing section)
- Bills will be printed in the respective wards to save time and to cope up with the communication gap stated in earlier discharge reports.
- Attendees will receive bills through SMS to keep them informed well in advance for the final charge.

PROJECT REPORT

" Risk Management and assessment in Dietary Department at SDMH,Jaipur"

Introduction:

Diet plays a very crucial and inevitable role in health promotion and well being. a good and quality diet not only helps in proper body functioning but also copes deficiencies, if any and helps gain strength. An improper diet may lead morbidity and illness. Hospital diets are indispensable part of modern therapy in all medical departments. The dietary department of Santoka Durlabhji Memorial Hospital provides food and nutritional services that consistently promote adequate nutritional intake, improves health and enhances life's quality.

The dietary service is one of the chief assisting services of the hospitals unlike any other support services. The key objective of the dietary service is to make provisions of clean hygienic and nutritious diet for indoor patients in the hospital as per their requirements.

Dietary Services of the hospital:

- 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.

RATIONALE:

The sole purpose of conducting this cross sectional study at SANTOKA DURLABHJI MEMORIAL HOSPITAL,JAIPUR is to identify and reduce the risks in dietary department in an order to provide nutritious, hygienic and quality diet to patients which fulfils all their caloric requirement along with prime satisfaction.

SPECIFIC OBJECTIVES:

i. To identify risks in dietary department and assess its hazard potential using score method.
ii. To provide preventive measures of the risks identified.
iii. Compliance of the dietary department checklist

MODE OF DATA COLLECTION –

Sample size: Meal preparation for 200 patients for a duration of 10 days was observed .

Source: data for the study has been collected through primary source that is, individual observations.

Technique used: a checklist designed foe dietary department was used. Personal interviews of food handlers in the kitchen were also conducted.

Limitations:

Data for only day time servings was collected due to time constraints.

Samples were not collected on Sunday as it was a weekly off.

STATISTICAL ANALYSIS AND FINDINGS:

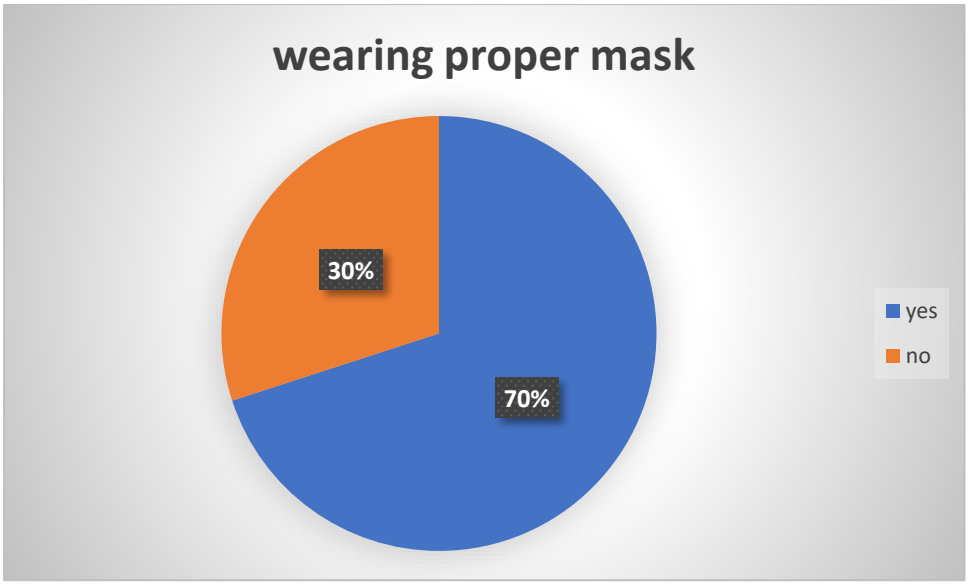
- All the raw materials purchasing for the kitchen is done from departmental store having FOOD LICENSE issued by FSSAI which is renewed every year.

- STORAGE:

i. The storage room of the raw material has a proper implementation of FIFO which makes sure that food items are not stored for prolonged period.
ii. Cooked and uncooked products stored separately.
iii. The temperature of the refrigerator is monitored in regular intervals if time. Refrigerators have different compartments for storage of cooked food, uncooked products and dairy products. Refrigerator is cleaned twice a day to maintain hygienic practices.

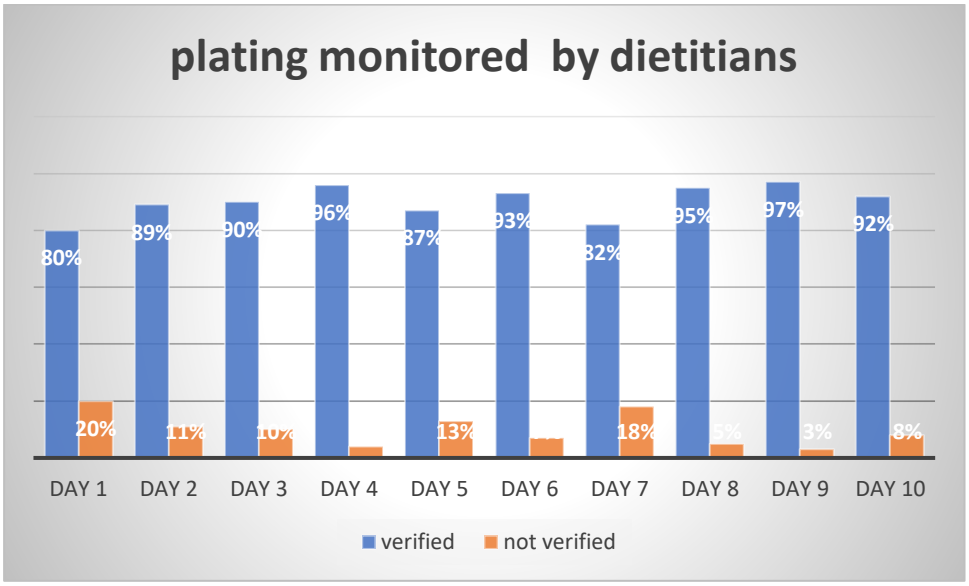
- The kitchen area and washing area are separated.

While observing the food handlers in the kitchen during meal preparation it was observed that 70% of them were masked properly where as 30% of they were wearing it under their nose.

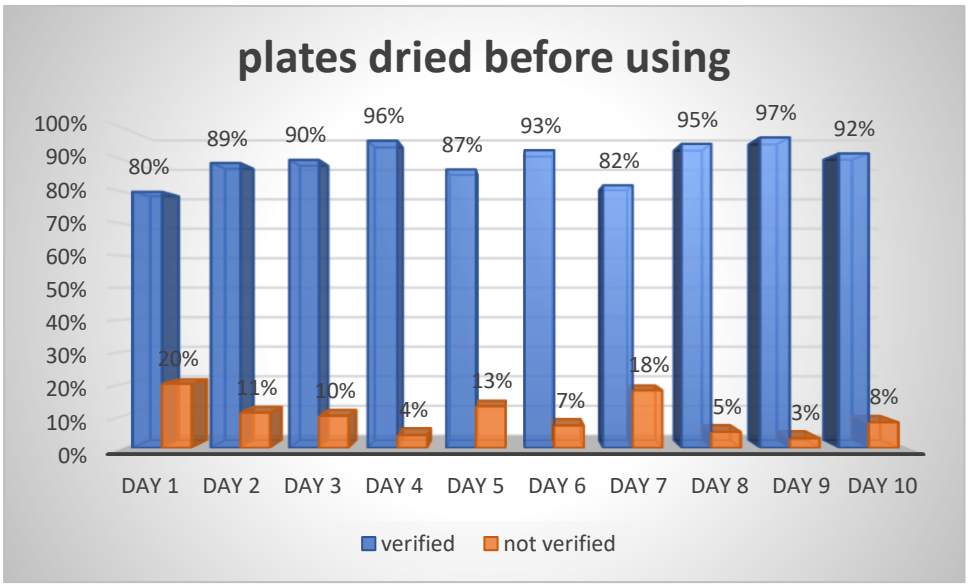


- 80% of the times the kitchen staff did not wear gloves while handling food.

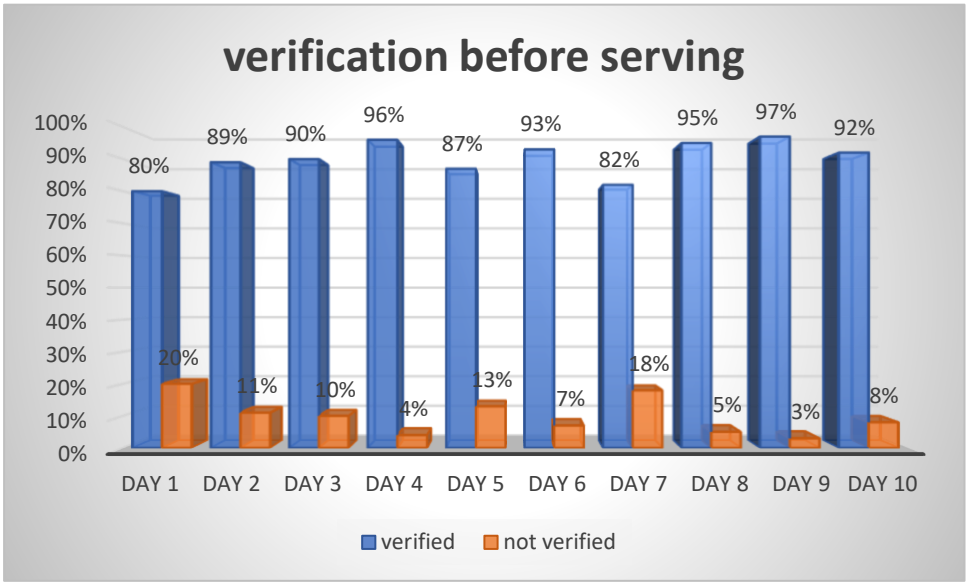
- The following chart depicts the percentage of plating done under the observation of dietician during a span of 10 days.



- Percentage of usage of wet plates was high on day 1 which after regular monitoring decreased day by day and eventually reached 8% on the 10th day of the study.



- The diets are verified before serving it to patients. The chart shows the percentage of total diets that were verified and not verified before serving it to the patients.



RISK ASSESSMENT and CALUCULATION OF HAZARD POTENTIAL using score method:

- **Estimation of Hazard Potential:**

Estimate the Probability of Occurrence (PO) in every hazard in the list by allocating a score on a scale of 1 – 4:

- **4 = Frequency: 2-3 times a week or even higher**
- **3 = Frequency: once in a few months**
- **2 = Frequency: once in a few years**
- **1 = Frequency: rare, cannot be predicated /ruled out**
- **0 = No changes of occurrence**

- **Damage Potential:**

- **Estimate the Damage Potential (DP) in all the hazards and allot a score on a scale of 1 – 4:**

  - **4 = Disastrous consequences involving mass casualties (fire, building collapse)**
  - **3 = Severely harmful to patient (including death), property or process**

- **2 = Moderately harmful to patient (grievous injuries), property or process**
- **1 = Mildly harmful to patient, property or process**

- **Calculation of Hazard Potential:**

Damage Potential	Probability of Occurrence				
	0	1	2	3	4
	Hazard Potential				
1	0	1	2	3	4
2	0	2	4	6	8
3	0	3	6	9	12
4	0	4	8	12	16

- **Overall HP of a hospital can be used to determine even the safety rating of a hospital as given below:**

No. of Hazards	Overall HP	Safety Level
0 – 8	0 – 16	5 Safe
0 – 8	0 – 128	4 Reasonably Safe
8 – 16	129 – 256	3 Unsafe
17– 24	256 – 384	2 Dangerous
25 and above	384 and above	1 Extremely Dangerous

CONCLUSION and RECOMMENDATIONS:

- Risks associated with the dietary department were identified along with the measures that are to be taken to ensure infection free well cooked food prepared in hygiene manner the supervision of qualified dietician.
- The calculation of hazard potential is done by estimating probability of occurrence and Damage potential.

S.no.	Risk associated with Dietary Department	Probability of occurrence (PO)	Damage potential (DP)	Hazard potential (HP)	MEASURES TAKEN AT SDMH
1	Purchasing of adulterated food items	3	2	6	• Food items purchased from a licensed vendor • Double verification done before storing
2	Food items damaged by rodents	4	1	4	• Proper execution of pest control program • Regular cleaning and maintenance of storage room
3	Storage and usage of expiry products	3	2	6	• Inventory list maintained • Execution of FIFO- first in first out • All food items having labels for manufactured and expiry date
4	Gas Leakage from LPG cylinders	1	4	4	• Adequate number of cylinder to ensure uninterrupted supply • The gas cylinders are complied with the "Gas Cylinder rules 1981" • Empty and full gas cylinders are stored separately • Full cylinders are stored in standing position and chained • Adequate lighting and ventilation in all area of manifold room • Meticulous cleaning-no spill or grease on the floor or equipment area • The distribution pipelines have stop valves • System of auditory alarms • Planned preventive maintenance • Required fire equipment are installed
5	Unhygienic kitchen area leading to food borne disease	4	2	8	• Cleaning of kitchen with the disinfection protocol after every meal preparation

					• Covered dustbins are used • Chopping and washing area are kept separate from cooking area • Proper waste disposal guidelines followed
6	Bruises/cuts on the hands on food handlers leading to bacterial infection	3	2	6	• Complete blood test, urine test and other investigations done of the kitchen staff • Use of PPE- personal protection equipment including head cover, gloves and masks.
7	Unintentional addition of food allergens (eg. Soya, peanuts)	3	2	6	• Food allergens stored separate from other food products
8	Contaminated water used for cooking leading to water borne diseases	4	2	8	• Adequate water supply as per the requirement for drinking, cleaning and for equipment use etc • Quality of water for chemical and bacterial contents checked on monthly basis • All water tank (underground and overhead) tightly shut and bolted to ensure its dust free, and pest proof and out of reach of animals and birds. • As per the norms cleaning of tanks in every 6 months. • Regular check is done in the distribution system to ensure leakage proof distribution. • Sewage pipelines and the distribution system pipelines are in such a way that they do not lie nearby or in adjacency to each other.
9	Possible fires from heat producing equipment such as grill, ovens & burners	1	4	4	• Regular maintenance and calibration of all electric equipment • Checking of functioning of equipment before using it on the patient • Ensuring that the temp control mechanism is set at the right temperature level • Periodic check of the switches, sockets and cables and preventing of over loading • Having the fire equipment fully functional and check regularly.

10	Improper nutritional scanning by nursing staff	4	1	4	• Availability of qualified staff in adequate no. as per norms. • Double verification done by the qualified dietitians
11	Failure to record food allergies and intolerance	3	1	3	• Reliance on active communication with the patient and his attendant to identify allergies and intolerances
12	Not updating and recording diet as and when directed	3	0	0	• Dietitian round and consultation with the patient/attendant before every meal • Records maintained for every round and updates in diet modified by the dietitian • Cross confirmation from the records before serving the meal.
13	Wrong identification of patient leading to wrong diet being delivered.	3	2	6	• Patient identification carried by using at least two identifier (UHID & Name) • Identification is based on active communication.
14	Infection spreading through food transportation trolleys	2	2	4	• Following protocol for surface disinfection. • Sanitization of food trolleys after every meal is being served in the ward.

REFERENCES:

- Priyanka Shrivastava. Study on discharge process in 500 bedded multispecialty hospital; student dissertation (IIHMR University); 2012-14

- Fernando, Susantha & Wijesinghe, Champa. (2017). Quality and standards of hospital food service; a critical analysis and suggestions for improvements. Galle Medical Journal. 22. 10.4038/gmj.v22i2.7970.

- https://www.rgcirc.org/support/dietary-facility/

ANNEXURE:

S.No.	Name of Department	Dates of visit	% time spent	Interacted with (name & Designation)
1	IPD	15th may-30th June	40%	Dr. Ruchi Narang (IPD manager)
2	IPD	17th may-20th june	10%	Dr. Dinesh Mahala (cardiologist)
3	IPD	17th may-20th june	10%	Dr. Ayush (Neurologist)
4	Dietary services	15th June- 1st July	40%	Dt.Vaishali