To Study & Evaluate the Medical Record Department of Dharpur Medical College (GMERS), Patan-Gujarat: An In Depth Case Study

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Abstract

As we all know the situation and circumstances in "Public Healthcare Delivery System in India" in current scenario. What was the situation of healthcare system from the point of all kind of management? So in this paper we would like study and evaluate the MRD of a Government Medical College which is situated at Patan, Gujarat. Further we would be dealing with problems and current management system of Hospital Administration where how and in which way through modern techniques MRD system is being managed. This is the critical study of existing workload, infrastructure, functioning of the Medical Record Department of Dharpur Medical College, Patan Gujarat. This study would lead to the Medical Record Department system of procurement of medical & surgical patient's files & records etc. This study will also explore load of Medico Legal Cases (MLC) of Dharpur Medical College, Patan

Introduction

Dharpur Medical College has been started in November 2011. This Medical College is the first medical college in the area of North Gujarat. As per talk with Medical Superintendent four hundred crore has been sanctioned to make this medical college & hospital fully functional. This is a self-finance Medical college. It covers the areas of Banaskantha, Sabarkantha, Patan&Mehsana Districts. It is situated just six km away from the city & district capital of Patan. It is on the road to Unjha, the spice city of India. It has a newly built building for Medical College as well as residential quarters for the employees of the medical college. The recognition by Medical Council of India is due. The employees of the medical college are working to attain the standards laid by the MCI, New Delhi.

Contents

AIM

To study & evaluate the Medical Record Department of Dharpur Medical College, Patan

Objectives

·To study the existing workload, infrastructure, functioning of the Medical Record Department of Dharpur Medical College, Patan

·To study the Medical Record Department system of procurement of medical & surgical patients files & records in the Dharpur Medical College, Patan

·To study the load of Medico Legal Cases (MLC) of Dharpur Medical College, Patan

Methodology

Keeping in view of the above Aim & Objectives, the following methodology was adopted

Observational Studies

An observational study was carried out at the Medical Record Department of Dharpur Medical College, Patan to assess the organizational structure, study of existing facilities.

Detail discussion was held with the Medical & Paramedical staff regarding the service condition, availability of the Medical facility and availability of equipment and workload at the Medical Record Department of Dharpur Medical College, Patan

Retrospective Studies

Retrospective analysis of total number of beneficiaries who have availed healthcare facilities and pattern of services rendered was studied from the past medical records/billing section of five months (1st November 2011 to 31st March 2012) of Medical Record Department of Dharpur Medical College, Patan

Prospective Studies

Measures to improve infrastructure & services at Medical Record Department of Dharpur Medical College, Patan

Total number of patients admitted as out-patients for the Healthcare services were studied for one week (i.e. 15th April 2012 to 22nd April 2012) & workload assessed.

Records and data were scrutinized, analysed and conclusions drawn.

Observations

Quotes by RMO:

As per talk with the Resident Medical Officer, infrastructure facilities are the best, but there is a huge deficiency in the manpower. Being the new facility the staff is recruited by the Government of Gujarat run Gujarat Medical Education Research Society (GMERS). The posts which are vacant even after advertisement and recruitment procedures are filled by deputation from other Medical colleges. There is a shortage of professors for various departments of the hospital. There is a very high attrition rate in the post of Medical Officers also. Out of the ten sanctioned posts of Medical Officers only seven are filled at present.

All the services provided to beneficiaries are totally free. Not a single rupee is charged from patients for availing any type of services, i.e. treatment facilities, laboratory investigations, etc. All the services provided are curative services provided by the hospital. Yet the preventive services are not established in the medical college.

In-depth Interview:

Detail discussion with the following officers & staff was carried out to get the data & information about the medical college as well as Medical Record Department.

TABLE 1: List of participants who were interviewed to get the data for MRD study

| No	Name of the person	Designation
1	Dr Kirit A Mithawala	Medical Superintendent
2	Lt. Col Retd. (Dr) K. C. Sharma	Resident Medical Officer
3	Dr Parmar	Medical officer
4	Mr Kundan Singh	Assistant Hospital Administrator
5	Mr Pradipbhai	Record Clerk
6	Mr Gaurang S. Patel	System Manager (Server Room)
7	Mr Goral	Computer Clerk (Data Entry Operator)

Organizational Structure: Organizational Hierarchy is as follows
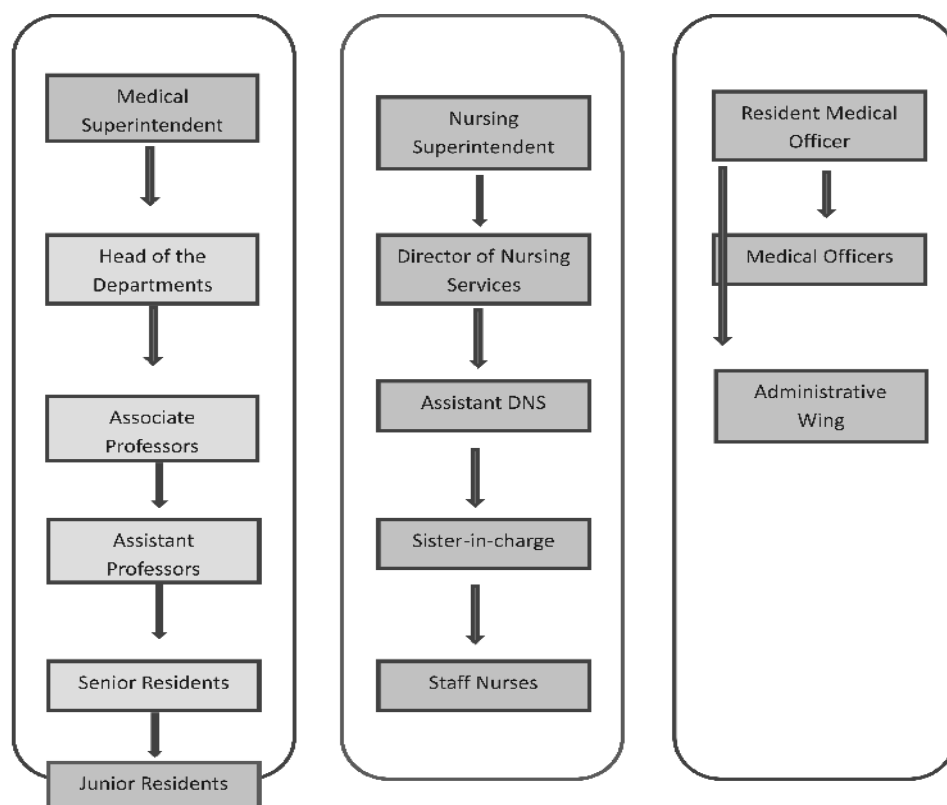
FIGURE 1: Organizational Hierarchy in three sections in MC, Dharpur
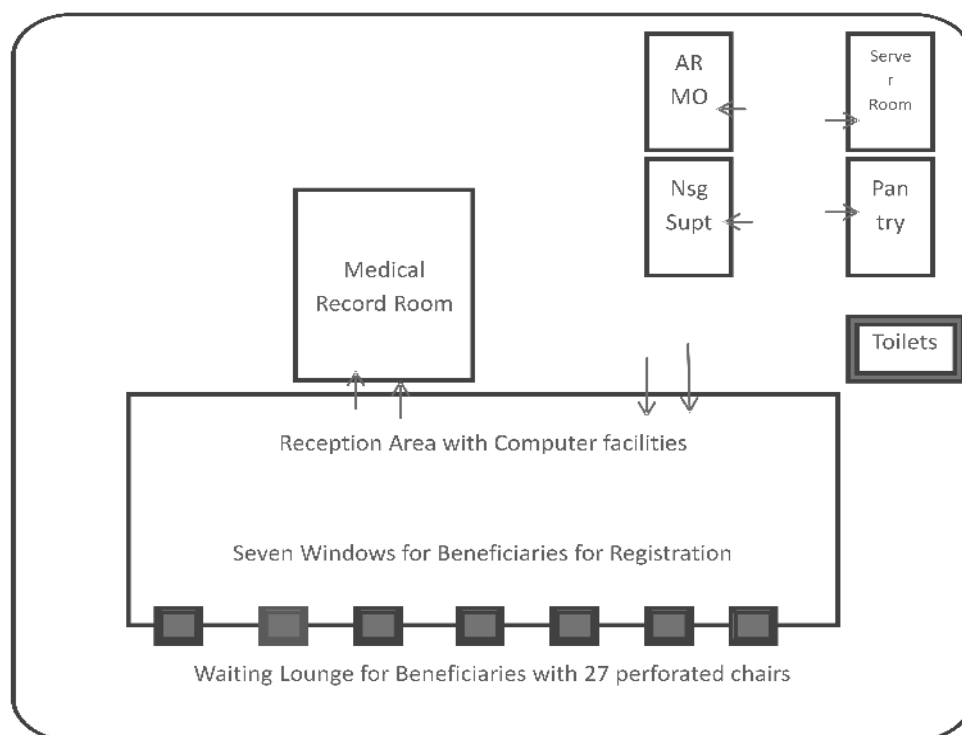
Location:

FIGURE 2: Location of the Medical Record Room & Reception in MC, Dharpur

Reception area is located near the entrance of the hospital. It is about 20x5 square feet size. There are 27 perforated chairs with 9x3 pairs.

Windows for Registration shows as following particulars:

TABLE 2: No of Registration Windows with particulars of beneficiaries

No	Beneficiary
1	Indoor patients (Male)
2	Indoor patients (Female)
3	RashtriyaSwasthyaBimaYojana (RSBY)
4	Outdoor patients (Male)
5	Outdoor patients (Female)
6	Physically challenged (Handicapped)
7	Senior Citizens

Generation of Medical Records:

The hospital runs on the Software provided by the Government of Gujarat. There is a Hospital Management Information System (HMIS) provided by the TATA services to the hospital in Government of Gujarat.

Timings for Registration:

OPD services: Morning 09:00 AM to 01:00 PM

Afternoon 03:00 PM to 05:00 PM

After completing the registration the doctors see the patients till 01:30 PM

IPD services: For this there are the same timings for registration.

Emergency services: There is a separate Casualty Department where all the emergencies are handled & cases are made in it.

Equipment & Manpower available in the reception area:

ü   Two computers for two service nodes with HMIS installed

ü   One photocopy machine

ü   Tables & chairs

ü   4-5 data entry operators

ü   Two telephone lines with four telephone instruments (02766-265401, Extension numbers- 278, 108, 186)

Outdoor patient case papers are generated in the HMIS software. They are taken by the patients at their homes. When they again visit the hospital, they give the serial number & the case paper is registered.

For outdoor facilities a unique number is given to each & every patient. This number starts every day with the patient arrival. E.g. OP Number: OP/120423/00083. This means that 83 patients registered till the time on the 23rd date of April Month in the year 2012 as Outdoor patient. Also MRD No is generated by self in the HMIS software. E.g. MRD Number: PMC/12/00008449. This means that in the year 2012, Indoor facilities were availed by 8449 patients till the time of the entry of that beneficiary.
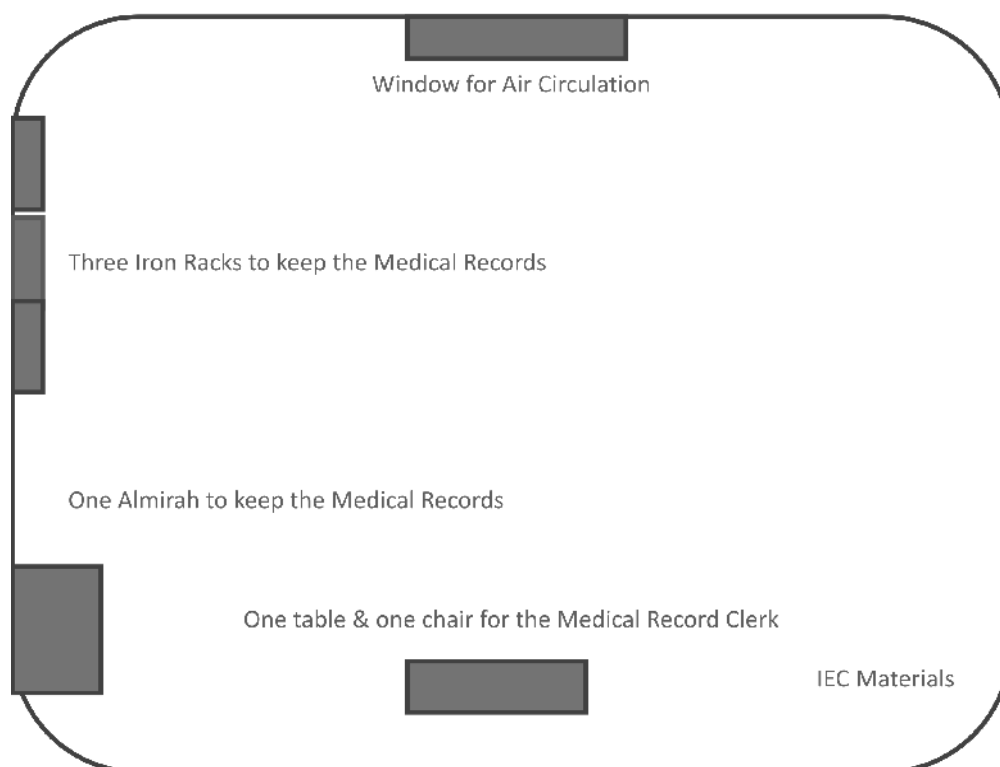
Layout of the Medical Record Room:

Window for Air Circulation

Three Iron Racks to keep the Medical Records

One Almirah to keep the Medical Records

One table & one chair for the Medical Record Clerk

IEC Materials

FIGURE 3: Layout of the Medical Record Room with Almirah& Racks

As shown in the above figure Medical Record Department is not yet established in the Medical College, but one Medical Record Room is available as shown above. The size of the MR Room is approximately 10x8 square feet. As per talk with RMO, Medical Record Department is in its primitive stage. Till yet, no particular manpower is allotted for MRD. So, there is no Medical Record Officer or Medical Record Technician posted till yet. At present only case record are put in one Almirah. No classification of records is taken in the MR Room. Only case papers are brought & put in the sequence in the cupboard. International Classification of Diseases (ICD-10) is yet to be applied. One Preventive & Social Medicine professor from Medical College, Ahmedabad named Dr Kintuis training the staff for the same classification, but yet to be implemented.

All the records are put manually in the MR Room. There is no computer available in the MR Room. Medical Records are not preserved in the soft copies. They are neither scanned nor preserved in the CDs. No equipment as well as manpower available for the same. One clerk Mr Pradipbhai is designated for the record keeping, named as Record Clerk.
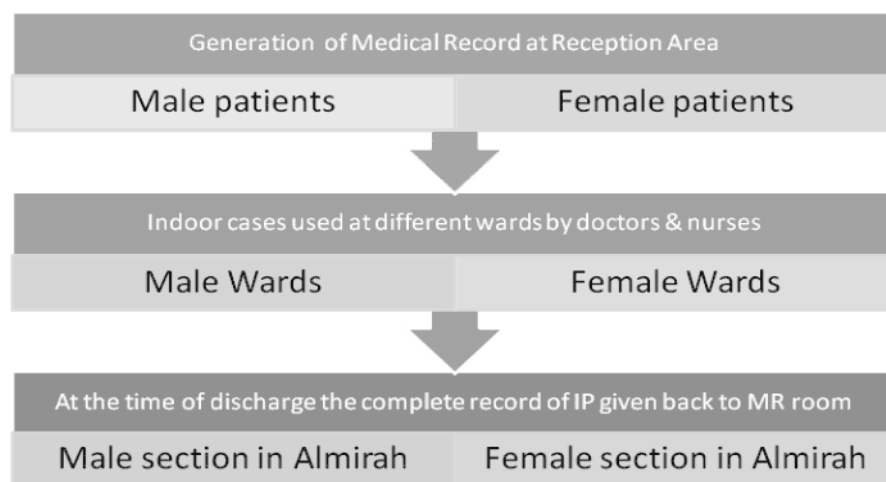
Record clerk cum Medical Record Technician receives all the documents from all the wards & put them in the Almirah as well as Racks serially.

Furniture available in the Medical Record Room:

ü One table

ü One chair

ü One Almirah

ü Three Iron racks

ü One telephone line (Extension No 277)

As the Medical College & Hospital has been recently started there is record of 2000 discharged cases. Outdoor cases are taken by the patients at their home. Whenever they come back they give the same case for the registration. No analysis of records is carried out. No statistical analysis of Acute Respiratory Infection cases, Diarrhoeal Diseases cases, Swine Flu cases, etc is carried out to provide preventive health services.

Procurement of Medical Records at the Medical Record Room:

Generation of Medical Record at Reception Area	
Male patients	Female patients

Indoor cases used at different wards by doctors & nurses	
Male Wards	Female Wards

At the time of discharge the complete record of IP given back to MR room	
Male section in Almirah	Female section in Almirah

FIGURE 4: Procurement of Medical Records in the MR Room

One Almirah& three racks contain Medical Records Ward-wise as shown below:

TABLE 3: List of MR in the Almirah in MR Room

No	Name of the Ward	Symbols written on Stickers
1	Male Surgical Ward	MSW
2	Female Surgical Ward	FSW
3	Gynaecology Ward	Gynaec
4	Male Medical Ward	MMW
5	Female Medical Ward	FMW
6	Casualty Department	Casualty
7	Eye (Male) Ward	Eye (M)
8	ENT (Male) Ward	ENT (M)
9	Paediatric Ward	Paediatric
10	Male Orthopaedic Ward	MOW
11	Female Orthopaedic Ward	FOW
12	Tuberculosis Ward	TB
13	Intensive Coronary Care Units	ICCU
14	Neonatal Intensive Care Units	NICU
15	Eye (Female) Ward	Eye (F)
16	ENT (Female) Ward	ENT (F)
17	Medico Legal Cases	MLC

FIGURE 5: Photograph of Almirah in the Medical Record Room

FIGURE 6: Photograph showing three Iron racks in the Medical Record Room

A Discharge Register available in the Medical Record Room contained the following details column-wise in it:

TABLE 4: Discharge Register kept in MR Room with columns

Serial Number	Medical Record Department Number	Name of the Patient	Village	Age	Ward	Date of Admission	Date of Discharge

There were no page numbers as well as signature columns available in the register.

A Medico Legal Case Register had following details column-wise in it:

Serial Number	Medical Legal Case Number	Name of the Patient	Age	Village	Date	Ward	Signature

There were no page numbers as well as signature available in the register

A discharge case record usually contained following details serially:

1. Indoor case sheet
2. Outdoor case sheet
3. Electrocardiogram
4. Progress Notes
5. Laboratory Investigation Reports
6. Consent Forms, both in English & Gujarati, i.e. vernacular language
7. Input/output charts
8. X-rays

Other facilities prepared for future Medical Record Keeping:

ü Active Record Room: As per policy of the hospital, Indoor patients records are kept for example for 3/6/9/12 months period. These records are for recent use of the patients.

ü Non-Active Record Room: Record of the patients which are not in recent use are kept here. E.g. those who have died & where there are no Medico legal issues.
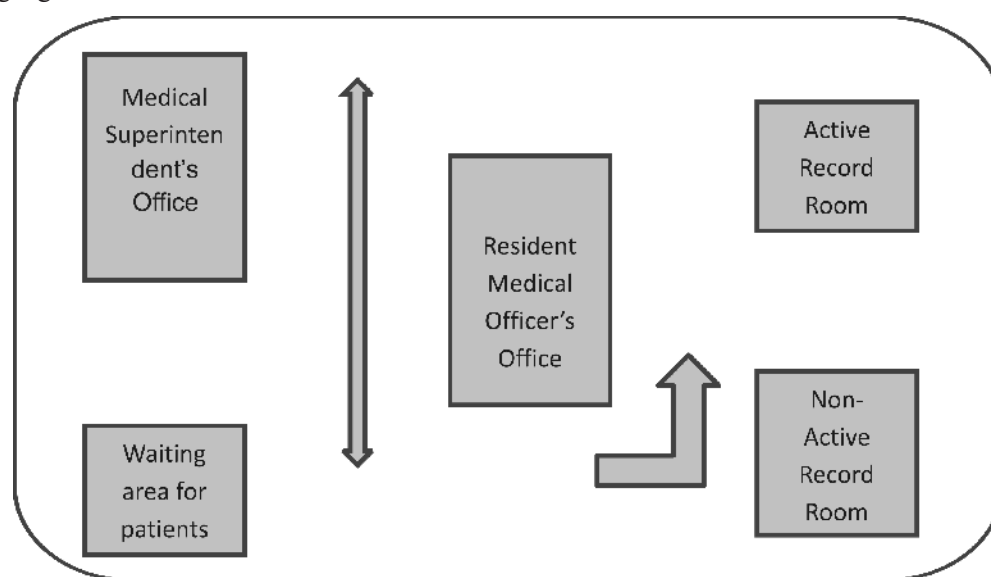

FIGURE 7: Layout of the Active & Non-active Record Rooms

Total Beds: Dharpur Medical College is a three hundred bedded hospital with one hundred fifty seats for medical students in it. Also there are added beds for Casualty & Intensive Care Units as per MCI norms. Some of them are non-functional as per talk with Assistant Hospital Administrator. Speciality wise beds of the medical college are as follows.

TABLE 6: Total beds of the Dharpur Medical College, Patan

| No	Speciality	No of beds
1	Medicine	72
2	Paediatrics	24
3	TB	8
4	Psychiatry	8
5	Skin & VD	8
6	Surgery	90
7	Orthopaedics	30
8	ENT	10
9	Eye	10
10	Obstetrics & Gynaecology	40
11	Casualty	10
12	ICU	5
13	ICCU	5
14	NICU	3
	Total	323

Workload:

Workload of the Medical College & Hospital, Dharpur:

ü   On an average 200-300 patients visit the Outdoor facilities every day.

ü   Indoor facilities are used by about 120-125 patients per day.

ü   Every day there are 10-15 Medico Legal cases to be attended by the Medical Officers.

The management is trying very hard to increase the OP as well as IP patients. For this they are organizing camps in the surrounding areas. They are also doing SarvaRogNidan camps. They call the specialists from Ahmedabad for super specialist facilities.

Table1: Frequency distribution of Demographic Factors

Out Patient Registration
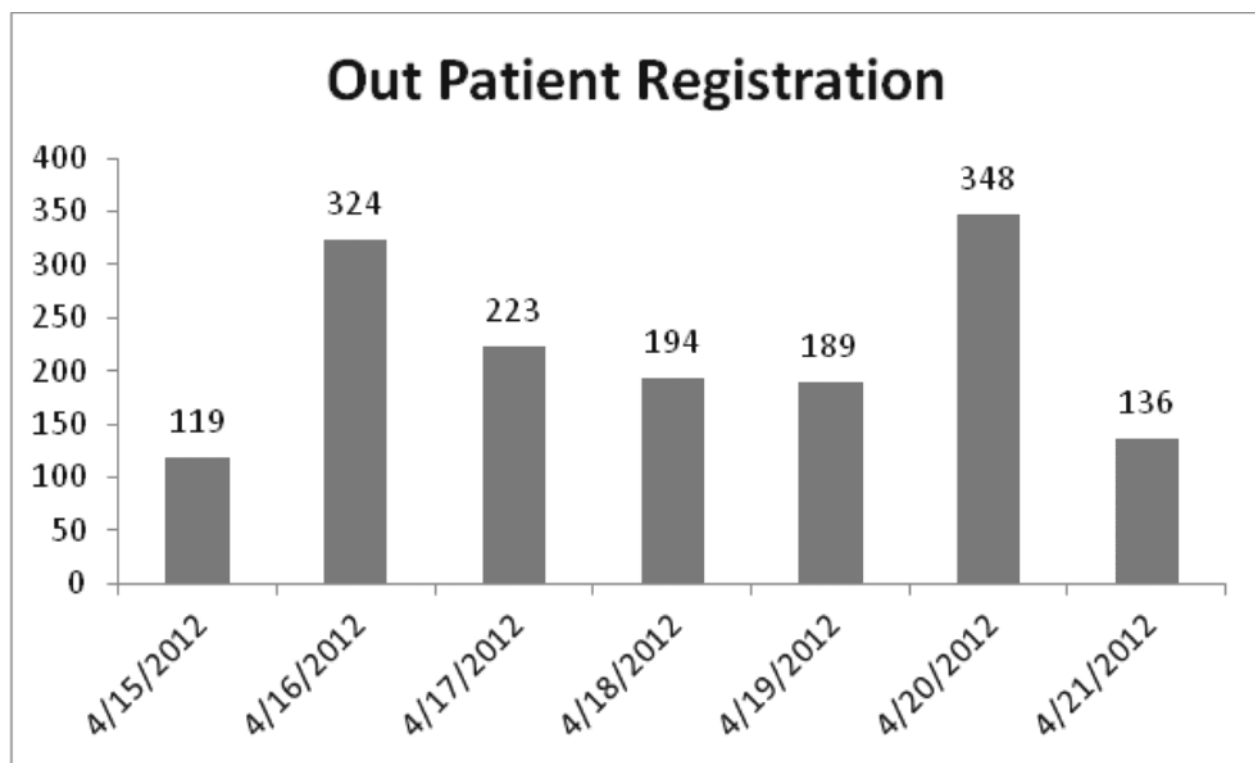
FIGURE 8: A chart shows Weekly OPD attendance in MC, Dharpur

On the date of visit till the data was made available total 160 patients had been registered as the beneficiaries.

If we see the OPD Registration in the past five months, **the trend line shows increase as shown in the chart below:**
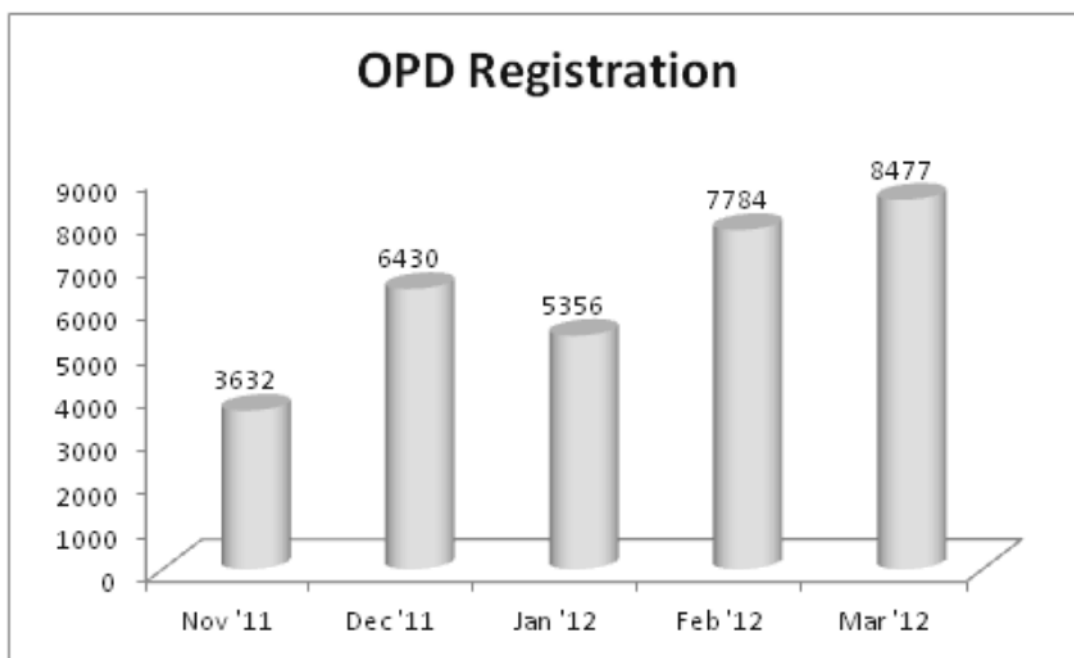
OPD Registration

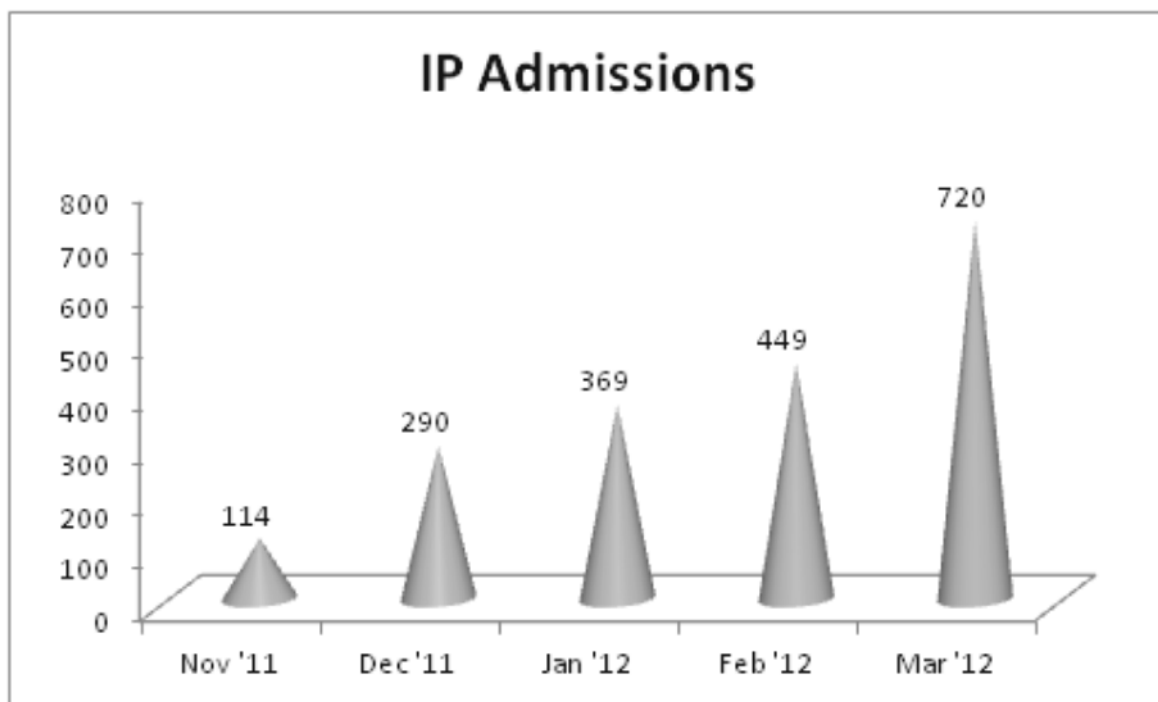**FIGURE 9: Graph shows monthly OPD Registration in MC Dharpur from beginning of MC**

FIGURE 10: Monthly IP Admissions in Dharpur MC from start of MC

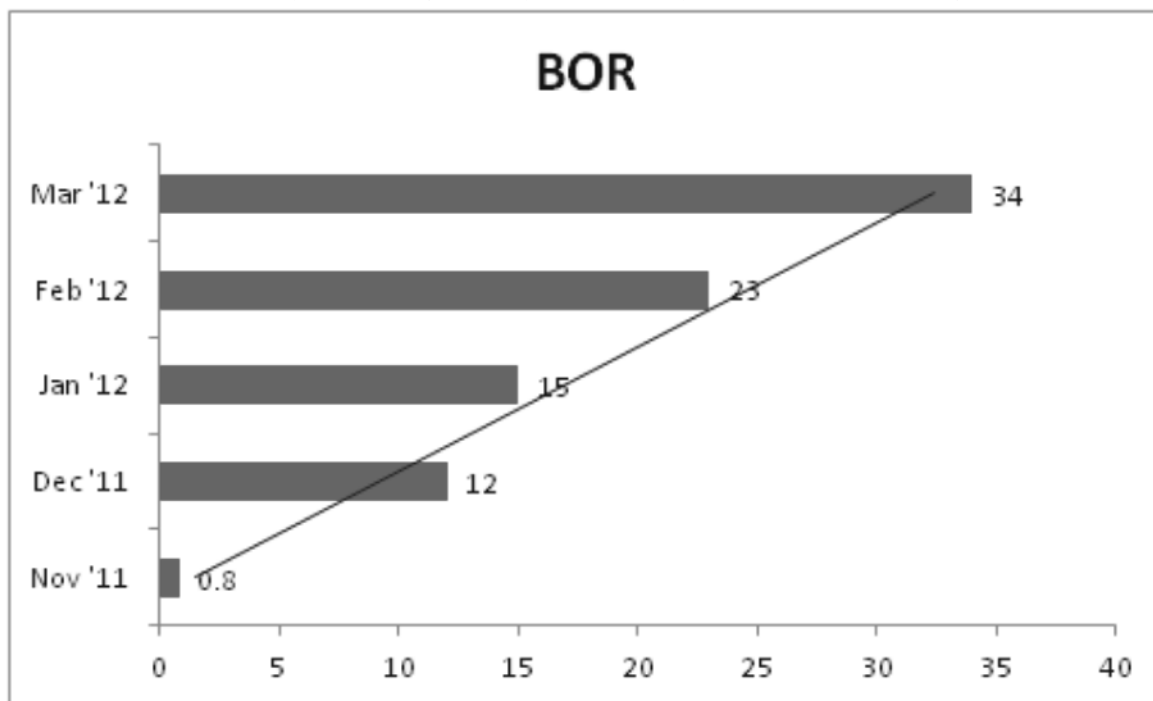**Bed Occupancy Rate has gradually increased by time as shown in the graph below**

FIGURE 11: Graph shows Bed Occupancy Rate in Dharpur MC monthly

Discussion

Medical College & Hospital, Dharpur, Patan has been recently started. Till yet they have not achieved the recognition by Medical Council of India, New Delhi. They are in the process of achieving the same.

So, being in its primitive stage, there was no Medical Record Department.

No manpower available to do the work related with MRD.

There was one Medical Record Room in which the record was kept manually.

For generation of medical records, they have started 15 days back Hospital Management Information System, the software provided by Government of Gujarat, provided by TATA Consultancy Services.

If we see the workload, it has increased in its all aspects, i.e. Outdoor patients, Indoor patients, Casualty patients, Operations, Laboratory Investigations, X-ray Investigations, USG Investigations, etc.

All the records are put in the almirah, as they come, they should be scrutinized for any deficiencies.

No checklists, no Standard Operative Procedures, no Policy or Protocols were available for any activities related with Medical Record Department.

There were no computers in the Medical Record Room.

One Record clerk, who was keeping all the records was not trained in the policy & procedures related with Medical Record keeping.

Preventive & Social Medicine trained person was there to train in International Classification of Diseases-10.

Organizational hierarchy related with MRD was not there.

Suggestions

· As per guidelines, 3 Sq F/bed space should be given to MRD, which in this case is 900 Sq F/bed for this Medical College & Hospital. So, three rooms, Medical Record Room, Active Medical Record Room, Non Active Medical Record Room should be 300 Sq F each.

· As per Todd Wheeler recommendation, minimum 8 staff should be deputed for MRD. So, One Medical Record Officer, two Medical Record Technicians, two Medical Record Clerks & three Attendants/Peons will be needed in future to run this department.

· There needs Standard Operative Procedures & Policy documents regarding medical records. The rules & regulations regarding for how long to keep the records as applicable by local authority should be followed and mentioned in the SOPs.

· One checklist should be prepared & put before the case papers, so that the documents which are not in the case papers are easily sorted out. Then the Sister-in-charge should be contacted to fill up the gaps.

· All the registers must be given page numbers. At the end of the register the certificate of the HOD or MRO should be there. There needs the stamps on all the pages of the registers. Also a signature who verifies the documents should be there. All the documents need to be neatly written by doctors, specialists & staff nurses. They should be legibly timed, signed, dated & named by each & every person who enters the data in it.

· Data entry operators/MR Technicians must be deputed.

· How to destroy the records in case of Non-active records or old/Non-MLC records must be mentioned in the policy & procedures.

· One Medical Record Committee should be formed for effective management of data. This should be headed & regularly reviewed by Medical Superintendent.

· More Almirahs& more racks will be needed in future as the workload increases.

· More computers, software, hardware, telephone lines, cables, servers will be needed in future.

· Standardized formats as generated in the HMIS, should be reviewed by all the Heads of the Departments.

· Issue of records in case of courts, medico legal cases, discharge summaries, etc should be specified in SOPs.

· Analysis of records should be started. Statistics should be provided for preventive health actions to health authorities.

· Regular audit of the medical should be carried out, quarterly, half-yearly or yearly, as per policy decision.

· Fire safety precautions, internet security, anti-virus software, and security personnel, all these will be needed in future.

· Grievances from patients, doctors, relatives, health authorities, insurance personnel, courts should be handled properly in regard with the non-availability of records.

·   Confidentiality of the records must be maintained in each & every circumstances as the records are the property of the hospital.

REFERENCES

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Principles of Hospital Administration & Planning, 2nd Edition, by B M Sakharkar