“To improve the discharge process on patient floor in the hospital”

A dissertation submitted in partial fulfillment of the requirements

for the award of

Post Graduate Diploma in Health and Hospital Management

by

Ishita Nagar

International Institute of Health Management Research

New Delhi - 110075

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महाराजा अग्रसेन अस्पताल
Maharaja Agrasen Hospital

Punjabi Bagh, New Delhi - 110026
PH.: 40777666, 40777777

ISO 9001:2008 certified

Certificate of Internship Completion

Date: 1 MAY 2012

TO WHOM IT MAY CONCERN

This is to certify that Ms. Ishita Nagar has successfully completed her 3 months internship in our organization from February 1, 2012 to April 30, 2012. During this intern she has worked on the project titled "Improvement of the discharge process on patient floor in the hospital" under the guidance of me and my team at Maharaja Agrasen Hospital.

During the tenure her conduct was found "Very Good"

We wish her good luck for her future assignments

(Signature)

Cdr. (Rtd.) J.S Guleria

Sr. Admn Officer

Cdr. (Retd.) J.S. Guleria
Sr. Administrative Officer
Maharaja Agrasen Hospital
West Punjabi Bagh, New Delhi-26

Certificate of Approval

The following dissertation titled **"Improvisationof the discharge process on patient floor in the hospital"** in Maharaja Agrasen Hospital, New Delhi is hereby approved as a certified study in management carried out and presented in a manner satisfactory to warrant its acceptance as a prerequisite for the award of **Post-GraduateDiploma in Health and Hospital Management**for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation

Name	Signature
Anupama Sharma	
Kusti Udayai	Kusti Udayai

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Certificate from Dissertation Advisory Committee

This is to certify that Ms. Ishita Nagar, a graduate student of the Post-Graduate Diploma in health and Hospital Management has worked under our guidance and supervision. She is submitting this dissertation titled "Improvement of the discharge process on patient floor in the hospital" in partial fulfillment of the requirement for the award of the Post-Graduate Diploma in Health and Hospital Management.

This Dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

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Abstract

IMPROVEMENT OF THE DISCHARGE PROCESS ON PATIENT FLOOR IN THE HOSPITAL

By

Ishita Nagar

Discharge from hospital is a process that involves implementation and development of a plan to facilitate the transfer of a patient from hospital to an alternative setting. All hospitals have their own operational policies for discharge planning. The standard of discharge management impacts on hospital efficiency, safety and quality of patient care. Good discharge management ensures patient satisfaction, bed availability for elective and emergency admissions and the quality of patient care remains high.

A prospective study was carried out for a period of one month from 1st March 2012 to 31st March 2012. During the course of the study the discharge process of patients was observed and an attempt was made to estimate the discharge time process.

On analyzing the data of one month on discharge process on patient floor, it was concluded that the discharge process needed improvisation. There was a lot of dissatisfaction amongst the patients and management due to the long delays caused in the discharge process. The maximum numbers of discharged patients were cash patients followed by panel and credit patients. A significant finding of the study was that due importance was given to the discharge process of trustee patients as compared to general patients because of which the average amount of time taken in the discharge process of trustee patient was 1 hr 30 min while that of general patient was 2 hr 34 min. Average amount of time taken in the discharge process of panel, cash and credit patients was 6hrs 12 min, 2 hrs 34 min and 2 hrs 54 min respectively. Average time at which each unit/department gave discharge orders was 10:46 am. The average amount of time taken in the medicine return to pharmacy was 39 min while the average amount of time taken in billing was 1 hr 46 min. Total discharges that took place in a period of one month were 210, so on an average 7 discharges took place per day

ACKNOWLEDGEMENT

Hard work, guidance and perseverance are the prerequisite for achieving success. Support from an enlightening source helps us to tread on the path to it. I wish to thank first of all the almighty that provided me energy for the successful completion of summer training.

I am thankful and obliged to the **Senior Administrative Officer Cdr. (Rtd.) J.S Guleria** for his unconditional support and guidance which was indispensible for successful completion of my study. I am also great full to my guide **Sh. C.M Sharma** for his continuous support, guidance and perseverance during the course of my study.

I am thankful to **Mrs. Ranjeeta Vij and Sis. Sreekala** for they have been always a source of inspiration for me. It has been my good fortune to be benefited by their knowledge, guidance and deep insight without which this study would not have found the exact shape. To them, I tender my heartfelt regards.

I am highly indebted to my mentor **Mrs. Meenakshi Gautam** for her guidance and constant supervision as well as for providing necessary information regarding the project & also for his support in completing the project.

My thanks and appreciations to all my classmates and friends in helping me to complete this project successfully.

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PART 1 INTERSHIP REPORT

1.1 Introduction to the organization :

Maharaja Agrasen Hospital was founded by Charitable Trust on 15th August 1991 with 63 beds and now it is 380 bedded centrally air conditioned fully computerized Multi Super-specialty hospital

Located in west Punjabi Bagh, it is a symbol of excellence and commitment and is offering advanced medical facilities under one roof comparable to the International standards with latest State of the Art medical equipments

Vision :

To establish a chain of maharaja Agrasen hospital to provide quality medical care at an afford price irrespective of cast, creed, religion and sex.

Mission :

- To provide quality care and community service to uplift the societies at large
- To give medical education and training
- Give "free" medical aid to deserving poor human beings irrespective of cast, creed, religion and sex

Aims and Objectives :

- To give free medical aid to every deserving person
- Promote better health
- Better treatment for every ill person under one roof
- In house training program for medical, paramedical and non-medical personnel

Policy and Motto :

- Best quality patient care
- Judicious use of drugs and appropriate interventions
- Highest standards of medical ethics
- Maintain highest standards of hygiene and cleanliness

SPECIALTY	SUPER SPECIALTY
Medicine	Cardilogy
General Surgery	Cardiac Surgery
Orthopaedics	Respiratory Medicine
ENT	Endocrinology
Paediatrics	Gastroenterology
Obs&Gynae	Paediatric surgery
IVF	Medical Oncology
Dental	Rheumatology
Psychiatry	G.I Surgery
Skin & V.D	Plastic Surgery & VD
	Nephrology
	Neurology
	Urology
	Breast Cancer
	Diabetic Foot

1.2 Area of engagement:

I was engaged in the operations management of 5th floor of the hospital. It was a private ward comprising of suites, deluxe and private rooms.

1.3 Report on managerial tasks done on the floor :

- Ensuring that new admissions were received on time in floor.
- Ensuring that discharges were completed on time
- Addressing patient problems
- Taking daily round of the ward, ensuring that all the equipments/ machines were in the working condition.
- Addressing maintenance related problems to the respective department.
- Providing information in case of any query
- Checking completeness of medical record files
- Coordinating the duties of ward secretaries on the respective floor.
- Managing the security, housekeeping and F&B issues.
- Evaluating feedback forms and giving suggestions for improvement
- Analyzing and streamlining the processes in the ward

1.4 Reflective learning during internship :

- It was observed that there was no control on the number of visitors visiting the patient. I streamlined the process by starting pass system on the floor in coordination with the concerned security supervisor.
- Signages were not appropriate in the floor and attendants often used to stop by the nursing station to ask for directions. Proper signages were displayed all across the ward and it made the patient and attendant flow smoother.
- A room round book was developed which acted like a check list of all the required items/equipments in patient's room. Everyday a nursing-aid was asked to take the round of all the patient rooms and monitor each room according to the provided checklist. This

helped in highlighting maintenance related complaints and they were sent to the respective departments.

- Streamlined the duties of housekeeping staff so that there is no confusion and chaos on the floor and workflow can be smooth
- Carried out the auditing of medical store, capital items and general items so that proper stock is in place.

PART 2 : DISSERTATION ON "IMPROVEMENT OF THE DISCHARGE PROCESS ON PATIENT FLOOR IN THE HOSPITAL"

CHAPTER 1 INTRODUCTION :

Discharge from hospital is a process that involves implementation and development of a plan to facilitate the transfer of a patient from hospital to an alternative setting. All hospitals have their own operational policies for discharge planning. The standard of discharge management impacts on hospital efficiency, safety and quality of patient care. Good discharge management ensures patient satisfaction, bed availability for elective and emergency admissions and the quality of patient care remains high.

Nagaraju (2005) defines the *patient discharge process* as 'the final step of the treatment procedure during a patient's length of stay', and *timely discharge* as 'when the patient is discharged home or transferred to an appropriate level of care as soon as they are clinically stable fit for discharge'.

The discharge process represents the final contact between the patient and the hospital health professionals, and the outcomes of all procedures undergone by the patient are recorded at this stage. Improving the quality of the discharge process should therefore lead to an increase in patient satisfaction. As a result patients are likely to return to a health centre where they have experienced an efficient discharge process when they next seek treatment. In turn, efficiency and productivity are increased at the hospital (Gholipur&Ghomry 2003).

Bed management within the hospital setting is often the driver for the development of policy in relation to patient admission and discharges. Development of bed management policies will enhance the effective management of elective and emergency admissions and discharges. Discharge planning should commence pre-admission. On admission, the patient's morbid and functional status information are documented in order to perform discharge planning and to identify patients at risk on returning home.

According to the "Admissions and Discharge guidelines of Health Strategy Implementation Project 2003", the core principles of effective discharge planning are :

- A patient's use of a hospital bed and their discharge should be planned before their admission, where possible.
- The estimated date of discharge should be documented and communicated to the patient and relevant personnel within 24 hours of admission.
- Discharge should be "streamlined" (e.g. prescription and letter should be completed in a timely manner, transport booked and test results made available promptly)
- Complex discharges should be discussed at a regular multidisciplinary forum to ensure discharge is expedited.
- There should be an organization led commitment to manage all hospital beds.
- Resources such as discharge coordinator to ensure delays are minimized and extensive patient and family involvement is there in decision making processes.

Rationale for the study :

Every hospital must optimize its patient discharge process so that patient throughput can be maximized and patient placement delays can be alleviated. It has been seen that failure to pre-plan discharges as early as the time of admission often results in delayed discharge times and frustrated patients and attendants. Therefore a systematic approach is necessary for continuous process improvement and the coordination of numerous departments and functions in order to streamline the entire discharge process and alleviate delays in processing patient discharges.

Problem statement :

Discharging patients in a timely manner is an issue that plagues most large hospitals. At a 380 bedded multi-super-specialty hospital in West Delhi, the discharge process for patients was taking approximately 3 and half hours. The complaints from the patients and attendants were frequent and were affecting the hospital's reputation. Delayed discharges also blocked beds for new admissions, both elective and emergency

Literature review :

Patient throughput is a critical issue that directly impacts patient safety and quality. The Joint Commission on Accreditation of Healthcare Organizations recently developed a new standard requiring hospital leadership to "develop and implement plans to identify and mitigate issues in a hospital that can interfere with efficient movement of patients across the continuum of care within an organization" (Joint Commission on Accreditation of Healthcare Organizations, 2004).

According to Bateni (1995), appropriate discharge processes enable the list of available beds for admission to be kept current and accurate, and in addition, we can obtain useful data by accurate registration of patients in the admission book and calculating the admission and discharge dates for each patient (Bateni 1995:138).Conversely, available beds are a hospital's most important resource and the length of stay in hospital is an important factor in its efficiency. The unnecessary occupation of hospital beds and rooms and consequent low hospital bed turnover rate represent a waste in health care resources, and result in heavy associated organizational costs (Porhasani 1995).A study on the medical centers of Tehran University of medical Sciences, Iran and ShahidBeheshti has shown that in most centers complications in the discharge process and unnecessary routines have caused discharge delay and patient dissatisfaction. Scattered information and non-integrated database systems had resulted in increased workloads and dissatisfaction among internal and external hospital clients (Derayeh 2003). Moving patients effectively and efficiently through a healthcare system can also optimize an organization's capacity. Research conducted by The advisory Board (Smith, 2003) reported that a comprehensive approach to patient throughput could yield nearly 25 percent more effective capacity for the average hospital. A survey conducted by the American Hospital Association showed the average waiting time for patients being admitted from the emergency was 3.2 hours (Institute for Healthcare Improvement, 2004). A similar study performed at the BTGH revealed that patients waited on an average of 4.3 hours for an inpatient bed (Seaman, 2003). Ideally admission is the most appropriate time to begin plan for a patient's discharge needs. JCAHO mandates early identification of patient's discharge planning needs and the assessment of necessary resources to meet the patient's

needs after discharge from a healthcare facility (Lile, 1998). The Health Management Associates (HMA,2004) reported that throughout the Dallas County Hospital District very few physicians submitted discharge orders by noon, which is the industry standard (The Advisory Board, 2003). HMA (2004) reported that the Dallas County Hospital District experienced significant delays from the time the discharge order was written to the time the availability of the bed was reported in the hospital's computer system, often as many as six to nine hours. Research reveals a model of emergency (EC) case management consisting of a social worker (SW) and a nurse case manager (NCM) can prevent inappropriate admissions, improve discharge planning, decrease cost and enhance patient satisfaction. Once a patient is admitted to an inpatient unit, an interdisciplinary team must work collectively to manage the patient's plan of care. The coordination of care across the continuum decreases fragmentation and allows for effective utilization of resources (Bristow & Herrick, 2002). Studies have revealed that at the time of discharge, the patient bill is generated (various bills are compiled- Consultation, procedure, dietary, drugs etc) and claim is put forth to insurance company for final approval. In case of denial of approval, the patients can put forth all his hospitalization bills for reimbursement provided if necessary documents are enclosed including name of insurance company, claim policy number, and address of patient (ER1 Hospital Billing System).

AIM : To improve the discharge process on patient floor in the hospital

OBJECTIVES:

- To monitor and document the time taken at each step during the discharge process
- To determine the percentage of panel, cash and credit patients who got discharged in one month
- To determine the percentage of discharged patients according to the type of patient (general, trustee or staff)
- To compare the average amount of time taken in the discharge process of panel patients, credit patients and cash patientsTo compare the average amount of time taken in the discharge process of trustee patients and general patients.
- To compare the average amount of time at which each unit/department gives discharge orders.
- To determine the average amount of time taken in returning the medicines to the pharmacy
- To determine the average amount of time taken in billing
- To document the average number of discharges per day
- To identify the bottlenecks which lead to delay in the discharge process and their root cause.
- To suggest possible remedial measures if required

CHAPTER 2 DATA AND METHODS :

Methodology :

A prospective study was carried out for a period of one month from1st March 2012 to 31st March 2012. During the course of thestudy the discharge process of patients was observed and an attempt was made to estimate the discharge time process.

Study design : Descriptive study

- Sample size–210 patients
- Sampling technique used – Non probabilistic sampling technique
- Inclusion criteria – Patients whose discharge advice time was between 8 am to 6 pm

The discharge process comprised of following parameters :

- Date of discharge
- I.P number
- Unit/department under which the patient was admitted
- Mode of payment (Cash/credit/panel)
- Patient type (General/Trustee/Staff)
- Discharge advice time
- Time at which the medicines were returned to pharmacy
- Time at which the return came back from pharmacy
- Time at which the file was sent for billing
- Time at which the file came back from billing
- Gate pass time
- Final checkout by the patient

Time was noted at each of these steps during the discharge process of every patient.

Data Analysis :

Calculation of the percentage of panel, cash and credit patients who got discharged in one month :

- Total number. of discharge patients in one month = 210
- Total number of panel patients who got discharged in one month = 47
- Total number of cash patients who got discharged in one month = 147
- Total number. of credit patients who got discharged in one month = 16

Calculating the percentage :

- Percentage of panel patients who got discharged in one month = $\frac{47}{210} \times 100$ = **22 %**
- Percentage of cash patients who go discharged in one month = $\frac{147}{210} \times 100$ = **70%**
- Percentage of credit patients who go discharged in one month = $\frac{16}{210} \times 100$ = **8%**

Calculation of the percentage of discharged patients according to the type of patient (general, trustee or staff) :

- Total number. of discharge patients in one month = 210
- Total number of general patients who got discharged in one month = 198
- Total number of trustee patients who got discharged in one month = 10
- Total number. of staff patients who got discharged in one month = 2

Calculating the percentage :

- Percentage of general patients who got discharged in one month =198 x 100 = 94%
  210
- Percentage of trusteepatients who got discharged in one month =10 x 100 = 5%
  210
- Percentage of staffpatients who got discharged in one month = 2 x 100 = 1%
  210

Calculation of average amount of time taken in the discharge process of panel patients in one month :

Total time taken in discharge = Discharge - Final
advice time check out

- No of discharges of panel patients in one month = 47
- The statistical analysis was performed using Microsoft excel program
- So,
  Average time taken in discharge process of panel patients **= 6hrs 12 min**

Calculation of average amount of time taken in the discharge process of cash patients in one month :

- Total time taken in discharge = Discharge advice time - Final check out
- No of discharges of cash patients in one month = 147
- The statistical analysis was performed using Microsoft excel program
- So,
  Average time taken in discharge process of cash patients **= 2hrs 34 min**

Calculation of average amount of time taken in the discharge process of credit patients in one month :

- Total time taken in discharge = Discharge advice time - Final check out
- No of discharges of cash patients in one month = 16
- The statistical analysis was performed using Microsoft excel program
- So,
  Average time taken in discharge process of cash patients **=2 hrs 54 min**

<u>Calculation of average amount of time taken in the discharge process of generapatients giving cash payment</u>:

- Total time taken in discharge = Discharge - Final
  advice time check out

- No. of discharges of general patients giving cash payment in one month = 135

- The statistical analysis was performed using Microsoft excel program

- So,
  Average time taken in discharge process of general patients giving cash payment **= 2 hrs 34 min**

<u>Calculation of average amount of time taken in the discharge process of trustee orstaff patients giving cash payment in one month</u> :

- Total time taken in discharge = Discharge - Final
  advice time check out

- No. of discharges of trustee/staff/staff dependent patients giving cash payment in one month = 135

- The statistical analysis was performed using Microsoft excel program.

  Average time taken in discharge process of trustee or patients giving cash payment **= 1 hr 30 min**

Calculation of average time at which each unit/department gives discharge orders :

The statistical analysis was performed using Microsoft excel program

Table 2.1

Name of the department	Average time at which the discharge orders are given
Cardiology	10:52 am
CTVS	11:35 am
Endocrinology	10:55 am
ENT	8:00 am
Gastrology	11:45 am
Gynaecology	10:45 am
Medicine	10:39 am
Neurosurgery	10:45 am
Neurology	12:56 pm
Paediatrics	10:17 am
Plastic-Surgery	1:25 pm
Respiratory Medicine	10:20 am
Surgery	10:48 am
Urology	12:00 noon

The average amount of time at which discharge orders were given by each unit/department was**10:46 am**

Calculation of the average amount of time taken in returning the medicines to the pharmacy :

- The statistical analysis was performed using Microsoft excel program
- The average amount of time taken in returning the medicines to the pharmacy was = **0:39 min**

Calculation of the average amount of time taken in billing :

- The statistical analysis was performed using Microsoft excel program
- The average amount of time taken in billing was = **1hr 46 min**

Calculation of the average number of discharges per day in one month :

$$\textbf{Avg. no. of discharges per day} = \frac{\textbf{sum of total no. of discharges in 1 month}}{\textbf{Total no. of days}}$$

Avg. no. of discharges per day =

$$\frac{8+10+12+4+8+8+6+1+3+2+6+4+4+11+6+9+6+7+13+3+4+15+6+10+7+5+10+8+10+4}{30}$$

So, avg. no. of discharges per day = 7

CHAPTER 3 RESULTS AND FINDINGS :

On observing the discharge process at patient floor it was found out that :

- The concerned hospital was a 380 bedded hospital founded by a charitable trust having 1500 trustees who run the hospital for the welfare of the society.
- The 5th floor of the hospital was considered as the private ward and comprised of three different types of rooms – Suites, deluxe rooms and private rooms.
- There were in all 31 rooms on 5th floor (private ward) which were divided as-
  Suites – Had 5 rooms (Separate rooms for patient and attendant)
  Deluxe rooms – 8
  Private rooms – 18
- Since it was a private ward, the kind of patients who got admitted were either trustees or patients who were financially strong.
- The staff of 5th floor comprised of –
- 1 Floor Manager
- 1 Sister in-charge
- 1 Ward secretary
- 1 Billing staff
- Nurses
- 2 ward boys
- 4 nursing aids
- There was provision of separate billing staff for this floor considering the type of patients that are were admitted there so that the bills could be prepared on time without any delays.
- The consultant's visiting timings were not fixed in the hospital and they could visit the patient at any time between 8am-12pm in the morning and 3pm-5pm in the evening.
- After final decision to discharge the patient was taken, the treating Consultant/Resident doctor used to prepare the tentative discharge summary of the patient at least 12 hrs in advance and put it in the patient file. This discharge summary was made final, after the

decision was made by the consultant. The contents of discharge summary were as follows:

Contents:

- Reasons for Admission
- Clinical profile(salient features of past and present history and examinations)
- Investigations performed and summarized information about the results of the investigations
- Diagnosis made
- Record of procedures (operation, etc) performed
- Results of the procedure/surgeries performed
- Condition of the patient at the time of discharge
- Further management and medication
- Follow up advice
- Emergency contact number of the hospital/emergency department/treating consultant
- Discharge summary typed and signed by the treating consultant/resident doctor

Final Billing :

- On the day of discharge, confirmation of patient discharge was given by treating doctor or ward nurse.
- Patient file was sent to billing section for final billing settlement by the ward secretary.
- All the investigations, bed charges, consultation charges, surgery charges, consumables and other expenses incurred on the patient during his/her stay in the hospital were entered into the HIS by the billing staff on the same floor.
- Bill wasthen sent for auditingon the ground floor and 2 copies were made – patient copy(original) and accounts copy(duplicate) for accounts department in case of cash patients. 3 copies were generated in mediclaim cases-one for TPA (original), one for patient (duplicate) and one for the account dept (duplicate)
- Once the bill was audited, the final bill came back on the floor and was sent to the

patients' room for the final payment.

Cash patient :

- Payment by the attendant was done on the ground floor. Patient was handed over The original bill and a pink colored gate pass that was shown to the nurse on the floor and to the security personnel posted on the floor.
- The counter-nurse gave the discharge summary to the attendant and as per the instructions of the treating consultant in the discharge summary, patient's relatives were advised by the counter-nurse.
- She also asked the attendant to fill up the feedback form on the nursing counter and by that time some other nurse used to go to the patient's room to removes the cannula so that the patient was ready for discharge.
- The ward boy then finally used to leave the discharged patient to the ambulance or some other desired source of transport. The time when the discharged patient left the room was considered as the final check out by the patient

Mediclaim cases :

- In case of mediclaim, the sanctioned amount was crosschecked with the TPA desk
- In case the bill exceeded the initial sanction, intimation to the TPA company was sent regarding further authorization
- As soon as further authorization was received the patient/ relative was informed.
- In case the final authorization received was less than the actual bill the patient was requested to pay the difference
- Accordingly the bills raised were cleared, signature of the patient/blood relative was taken on the original bills And mediclaim papers and a photocopy of bothwas handed over to the patient for his/her reference
- A photocopy of the discharge summary was also handed over to the patient and the
- original was sent to the TPA

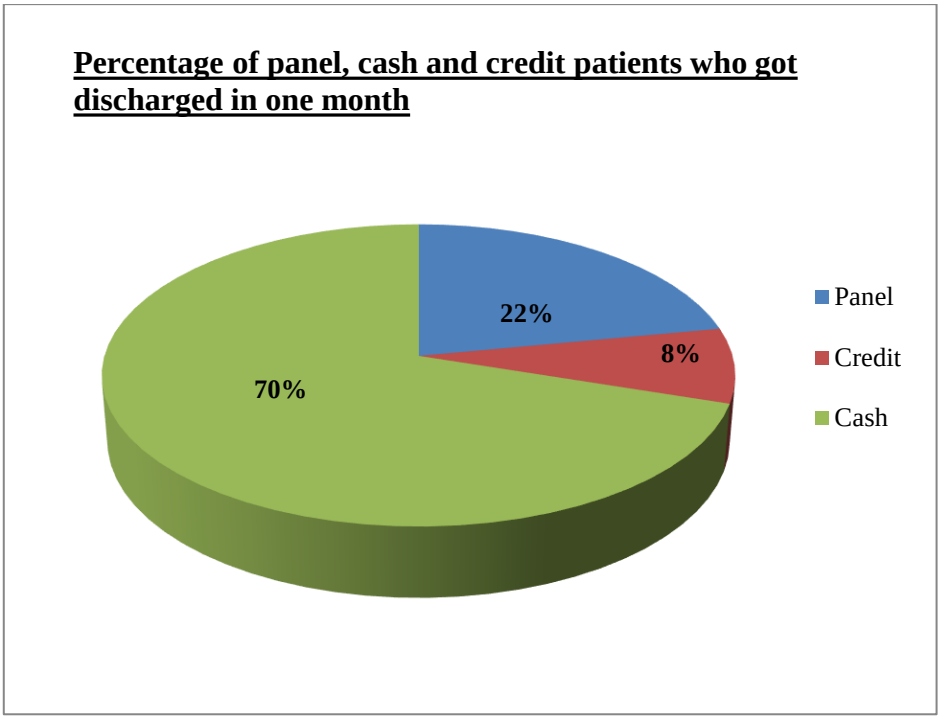
Table 3.1

STEP 1	• **The consultant gives the discharge orders after seeing the patient's condition** • **(the nurse conveys it to the ward secretary)**
STEP 2	• **Medicines are returned back to the pharmacy** • **(ward boy takes it to the pharmacy)**
STEP 3	• **Return comes back from the pharmacy** • **(warboy brings back the return)**
STEP 4	• **File is sent for billing by the ward secretary** • **(Bill is made on the same floor)**
STEP 5	• **The bill is made and sent for auditing on the ground floor** • **(Ward boy takes it to the ground floor)**
STEP 6	• **Once the bill is audited, it is sent back on the patient floor** • **(wardboy is sent to collect it after the call comes on the patient floor)**
STEP 7	• **The bill is sent to patient's room and the attendant goes back to the ground floor to make the final payment**
STEP 8	• **once the payment is done, the attendant is issued a gate pass which he has to show to the nurse on the floor and later to the security personnel**
STEP 9	• **The attendant brings the gate pass on the floor, the nurse gives him the discharge summary , removes the patient's cannula and the patient finally checks out of the room.**

Percentage of panel, cash and credit patients who got discharged in one month :

It was found out that there were 210 discharges from 5th floor of the hospital in one month. Out of the total patients discharged, it was seen that 70% of the patients gave cash payment, 22% patients were under panel and 8% patients gave credit payment.

Fig. 3.1



The discharged patients were empanelled under the following companies :

TPA :

- Medi Assist India TPA Pvt. Ltd.
- MD India Healthcare (TPA) Services (Pvt.) Ltd.
- E Meditek (TPA) Services Ltd.
- Focus Healthcare Pvt. Ltd.
- Medicare TPA Services (I) Pvt. Ltd.
- Raksha TPA Pvt. Ltd.
- TTK Healthcare TPA Private Limited
- East West Assist TPA Pvt. Ltd.
- Alankit Health Care TPA Limited
- Vipul Med Corp TPA. Pvt. Ltd.
- Park Mediclaim TPA Private Ltd.
- Safeway TPA Services Pvt. Ltd

INSURANCE COMPANIES :

- Max Bupa
- Bajaj Allianz

CGHS related panels were :

- ECHS
- MCD
- DGHS
- BSNL
- University of Delhi
- Haryana Government
- Engineering India Limited

Percentage of discharged patients according to the type of patient (general, trustee or staff) :

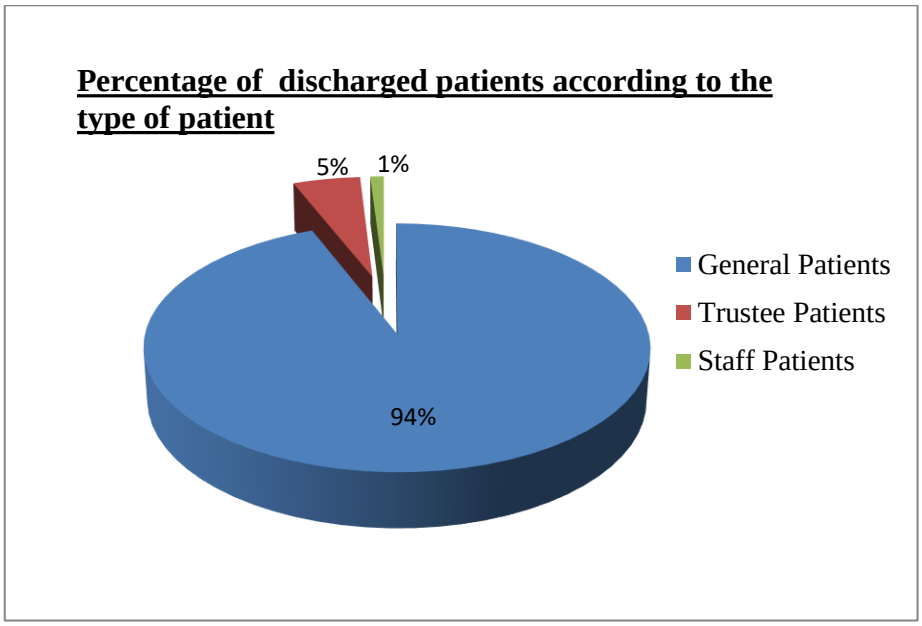
It was observed that in the hospital, the patients were categorized according to the patient type. They were labeled as “General patients”- Included general public

“Trustee Patients”- Who were a part of the charitable trust of the hospitaland for whom the treatment was free of cost. The trustees were given special attention during their stay in the hospital.

“Staff Patients” – Who were the employees of the hospital and for whom the treatment was free of cost.

Out of the 210 patients who got discharged in one month, it was observed that 94% patients belonged to “General” category, 5% patients were “Trustee” patients and 1% patients were “Staff” patients i.e. employee of the hospital.

Fig. 3.2



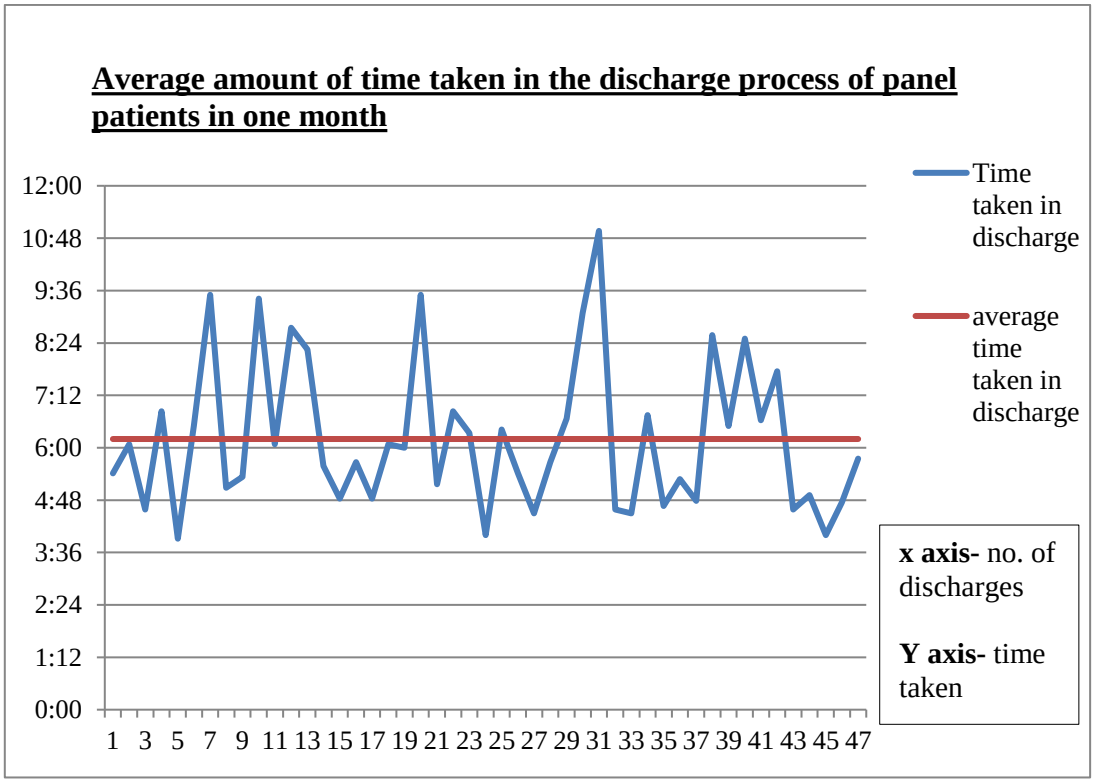
Comparison of the average amount of time taken in the discharge process of panel patients, credit patients and cash patients :

Average amount of time taken in the discharge process of panel patients in one month:

After collecting the data for one month, it was observed that panel patients take on an average 6 hrs 12 min to get discharged from the hospital.

- Minimum time taken in discharge of panel patients was = 3 hrs 25 min
- Maximum time taken in discharge of panel patients was = 10 hrs 58 min

Fig. 3.3

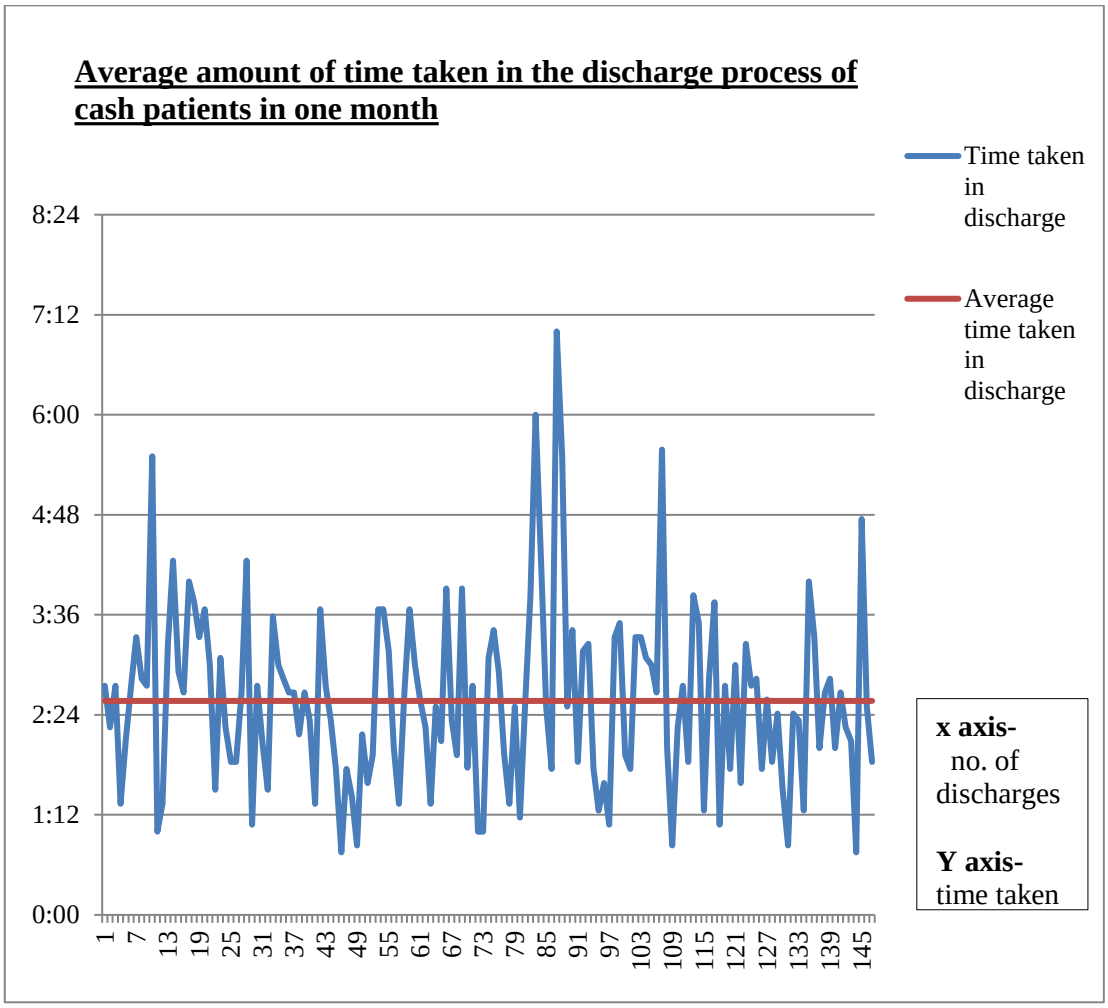


Average amount of time taken in the discharge process of cash patients in one month:

After collecting the data for one month, it was observed that cash patients take on an average 2 hrs34 min to get discharged from the hospital.

- Minimum time taken in discharge of cash patients was = 45 min
- Maximum time taken in discharge of cash patients was = 7 hrs

Fig. 3.4

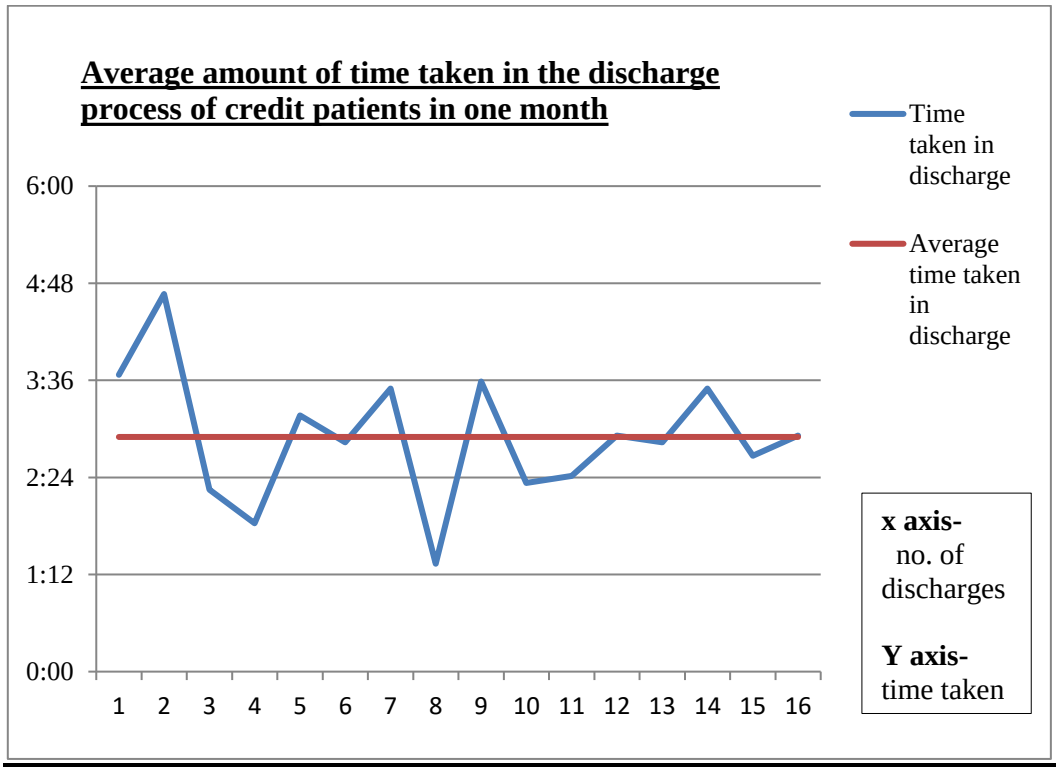


Average amount of time taken in the discharge process of credit patients in one month :

After collecting the data for one month, it was observed that credit patients take on an average 2 hrs 54 min to get discharged from the hospital.

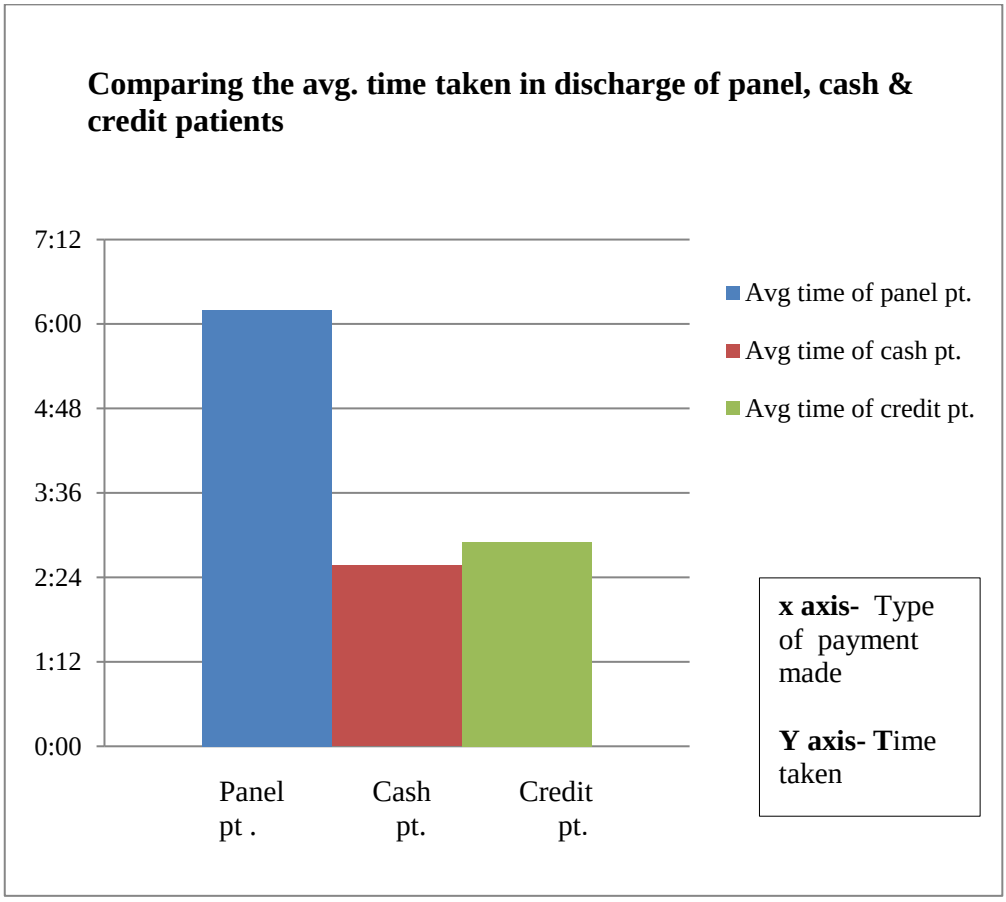
- Minimum time taken in discharge of credit patients was = 1 hr 20 min
- Maximum time taken in discharge of credit patients was = 4 hrs 40 min

Fig. 3.5



On comparing the average amount of time taken in the discharge process of panel patients, credit patients and cash patients, it was observed that the panel patients took maximum time to get discharged followed by credit and cash patients respectively.

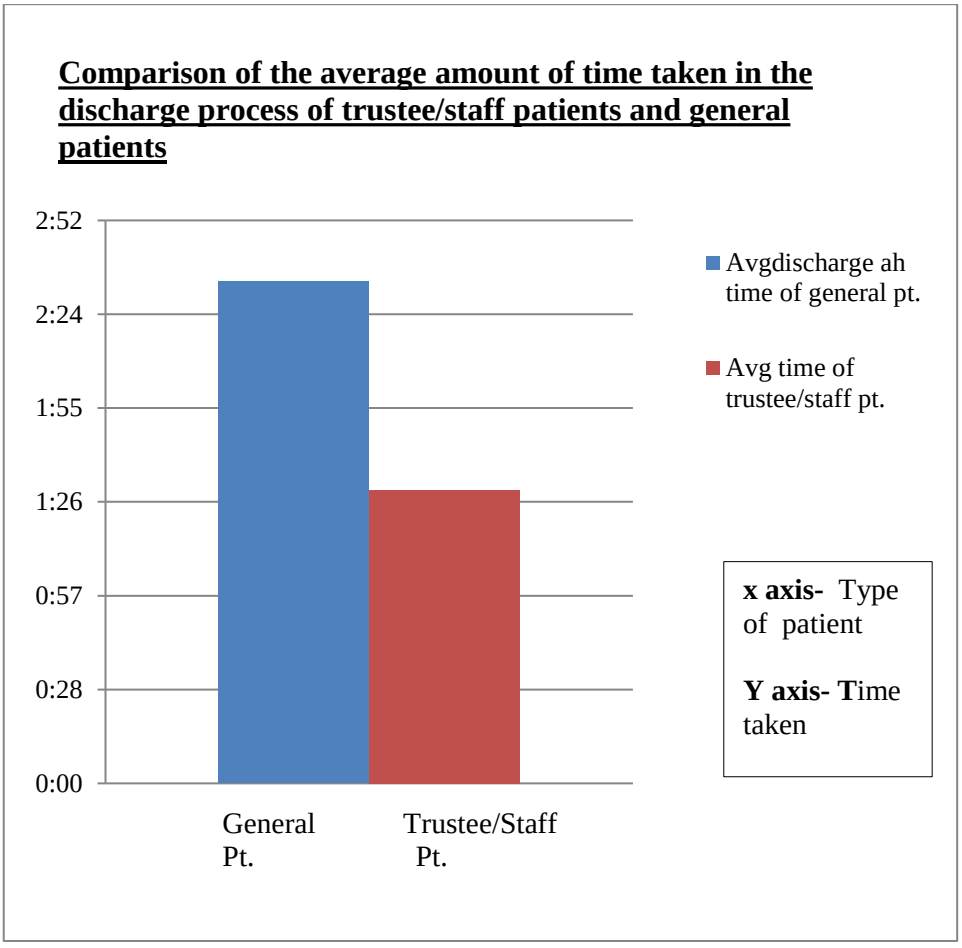
Fig. 3.6



Comparison of the average amount of time taken in the discharge process of trustee/staff patients and general patients :

On analyzing the data of one month it was found out that the average amount of time taken in discharge process of general patients giving cash payment was **2 hrs 34 min**
whereas in case of trustee or staff patients the average amount of time taken in discharge process was **1 hr 30 min**

Fig. 3.7

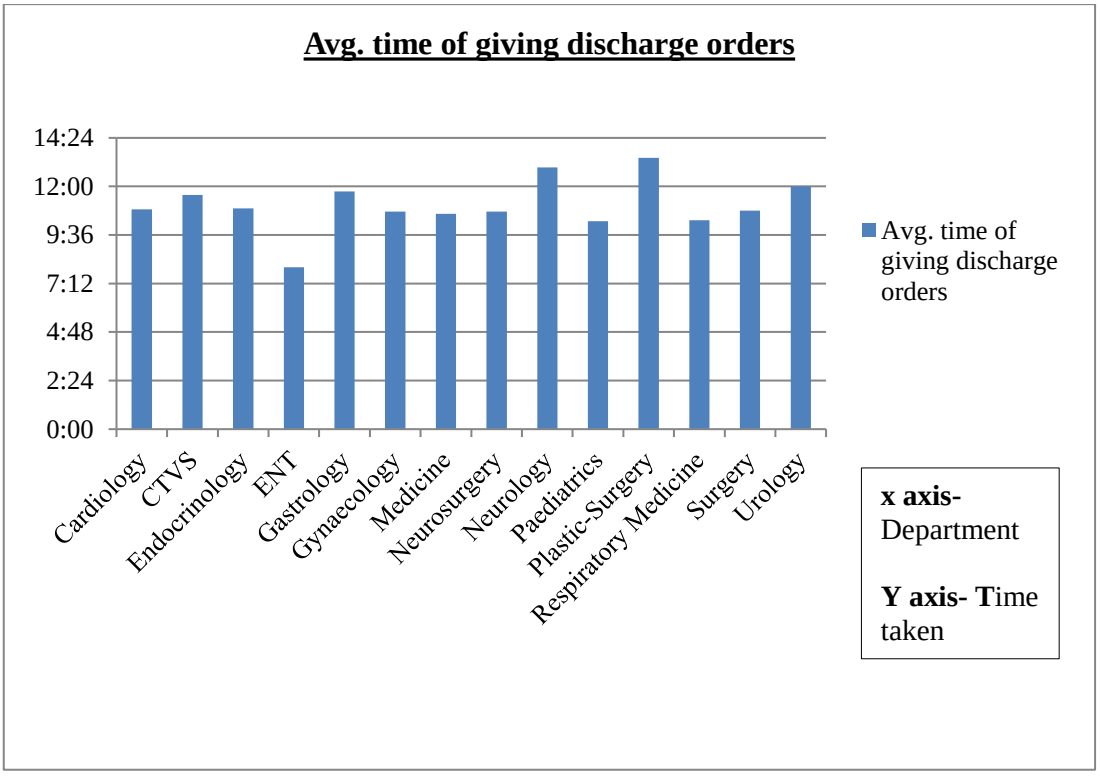


Comparison of the average amount of time at which each unit/department gives discharge orders :

On analyzing the data of one month it was found out that the average amount of time at which discharge orders were given by each unit/department was**10:46 am**

- It was found out that on an average, E.N.T department used to give discharge orders at the earliest as compared to all the other departments, i.e. at 8 am
- It was found out that on an average, the department of plastic surgery used to give discharge orders at the last as compared to all the other departments, i.e. at 1:25 pm

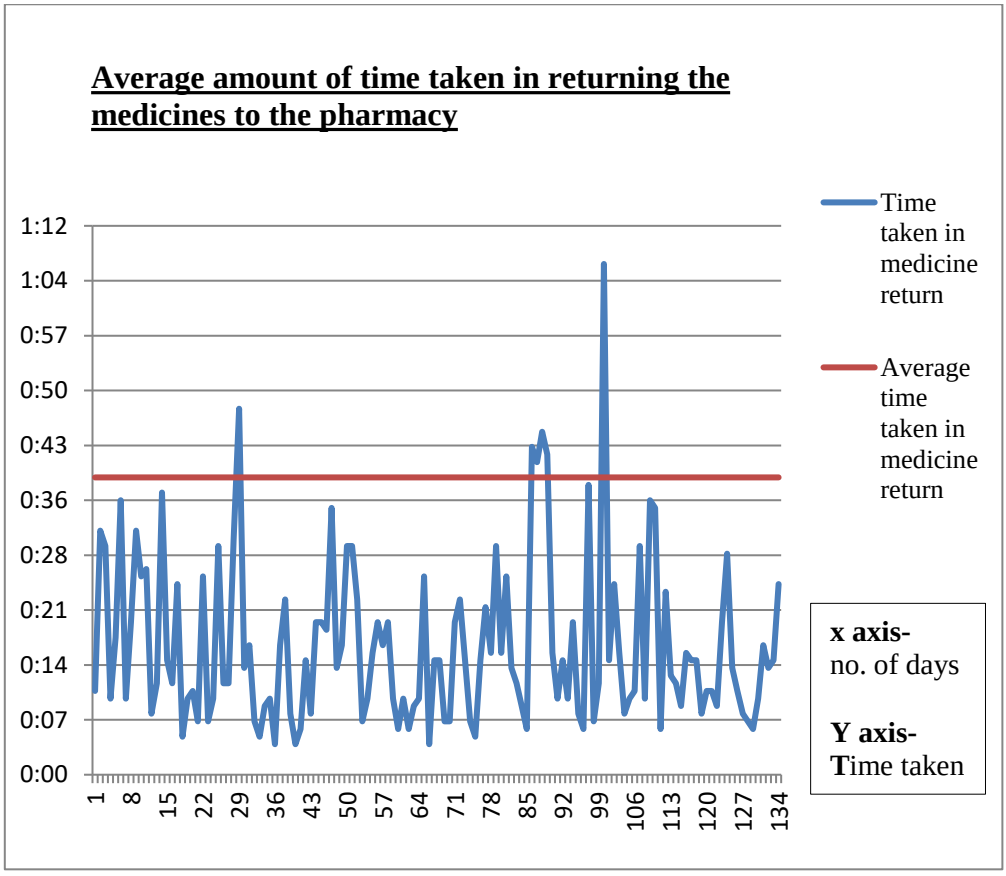
Fig. 3.8



Calculation of the average amount of time taken in returning the medicines to the pharmacy :

- On analyzing the data of one month, it was seen that the average amount of time taken in returning the medicines to the pharmacy was = **0:39 min**
- Min. time taken was – 4 min
- Max. time taken was – 1 hr 7 min

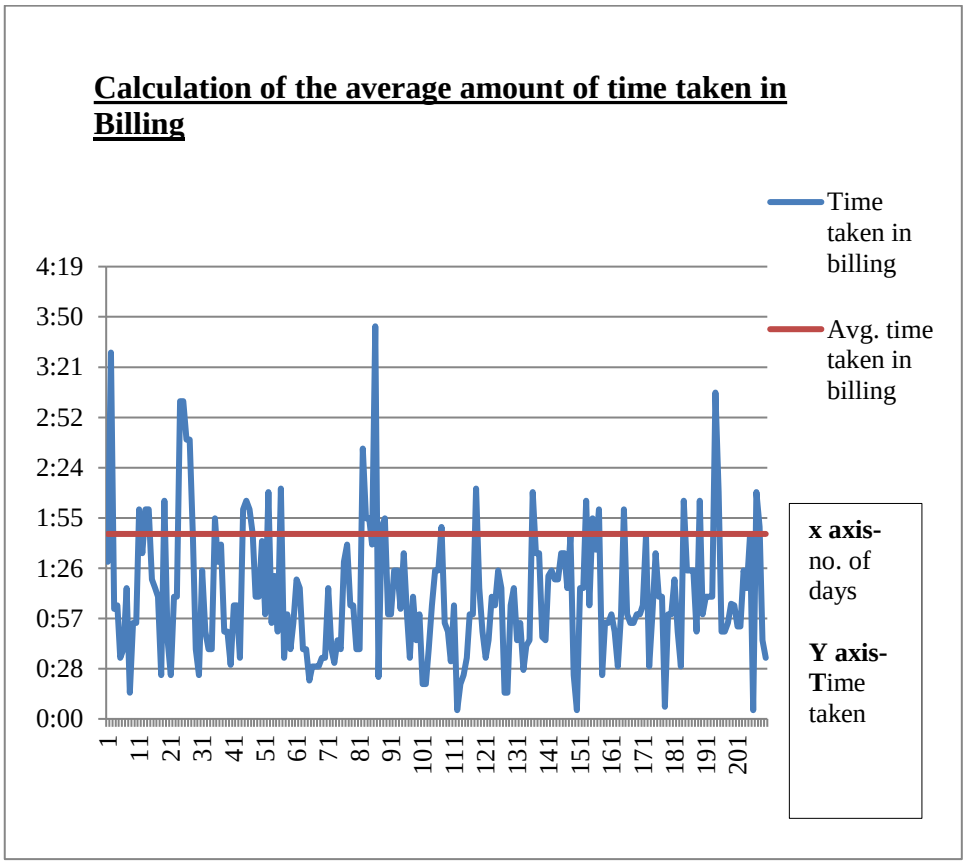
Fig. 3.9



Calculation of the average amount of time taken in billing:

- On analyzing the data of one month, it was seen that the avg. amount of time taken in billing was = **1 hr 46 min**
- Min. time taken was – 5 min
- Max. time taken was – 3 hrs 45 min

Fig. 3.10

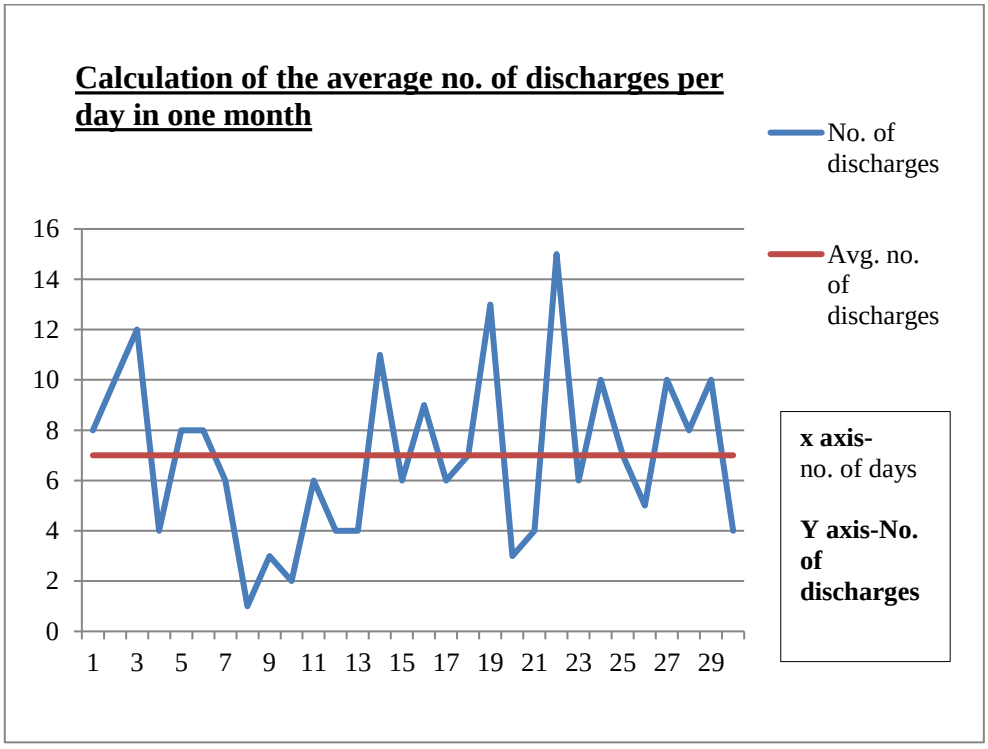


Calculation of the average number of discharges per day in one month :

On collecting the data for one month it was found out that the total number of discharges from patient floor were 210

The average number of discharges per day were = 7

Fig. 3.11



Major bottlenecks that prevent timely discharge of patients and their root cause :

Table 3.1

Bottleneck	Cause
Late start of discharge process	In maximum cases the discharge was not planned a night before, the discharge process began only after the consultants came for morning rounds. No provisional discharge summary was made beforehand.
Delay in medicine return to the pharmacy	The pharmacy was situated in the basement and a lot of time was wasted in going down from 5th floor and coming back. There were only 2 ward boys available during morning hours who were engaged in rest of the activities as well.
Delay in preparation of bill	There was only one billing staff available on 5th floor and she /he was responsible for preparing bills of both 5th and 6th floor. As there were on an average 14 discharges from both the floors combined, the billing personnel hardly got time for making provisional bills of rest of the patients.

CHAPTER 4 DISCUSSION:

A root cause analysis of the entire discharge process revealed that the current discharge process was extremely inefficient and time consuming. There were no benchmarks or yardstick available for comparing the time involved at each discharge process. A study on the medical centers of Tehran University of medical Sciences, Iran and Shahid Beheshti has shown that in most centers complications in the discharge process and unnecessary routines have caused discharge delay and patient dissatisfaction. In this hospital also, the process of pharmacy return and billing was cumbersome and time consuming. It was observed that a lot of time was lost in returning the medicines in the pharmacy which was situated in the basement and it required additional manpower that would go downstairs time and again for medicine return. This problem was complicated by the irregular working of the lifts which forced the housekeeping personnel to use stairs thereby adding on to delay in the overall discharge process. Average time taken in the return of medicines to the pharmacy was 39 min.

Another significant problem identified in the discharge process on patient floor was that the visiting timings of the consultants were not streamlined. There were no fixed time of discharge rounds of the consultants, they could visit the patient at any time between 8 am to 1:30 pm and give discharge orders leading to unnecessary delay in the initiation of discharge process of the patients. on an average the consultants used to come for discharge rounds at 10:46 am. No set protocols for the visiting rounds of the consultants left the patient confused and agitated.A study performed by Captain S. Erin Elarton on improving the discharge process to optimize patient throughput, stated that surgery residents were clearly writing discharge orders earlier than medicine residents. The majority of discharge orders were written on the surgery units before 12:00.

Another important observation was that the billing procedure of the hospital was very inefficient and tedious. There was a lot of wastage of time as the billing folder was made to roam around to different places before it was finale received by the patient. Although a separate staff was provided on the 5^{th} floor for billing but the personnel was also responsible

for making bills of the 4th floor which left them with no time to make provisional bills on regular basis. Once the bill was made on 5th floor, it was sent through a ward boy to the ground floor, on the cash counter for checking and finalization of the bill which consumed even more time. Once the bill was ready on the ground floor, the ward secretary of the respective floor was informed and the ward boy was sent again to the ground floor to collect the bill. This entire process used to take on an average of 1 hr 46 min for its completion. Since manpower was involved at every step, it led to delay of the entire process.

One of the major findings of this study was that there was a great variation in the time taken in the discharge process of trustee patients and general patients. On following the same process, a trustee patient got discharged in 1 hr 30 min while it took 2 hrs 34 min for a general patient to get discharged. This highlights the fact that if there is willingness in the staff, they can work towards improving the discharge process on the patient floor.

Limitations :

- The discharges only between 8 am and 6 pm were taken into consideration
- Time taken in the formation of discharge summary was not taken into consideration
- Time taken by the house keeping staff to make the room ready for the next patient was not taken into consideration.
- Time taken in the provisional billing was not taken into consideration

CHAPTER 5 CONCLUSION & RECOMMENDATIONS :

CONCLUSION :

On analyzing the data of one month on discharge process on patient floor, it was concluded that the discharge process needed improvisation. There was a lot of dissatisfaction amongst the patients and management due to the long delays caused in the discharge process. The maximum number of discharged patients were cash patients followed by panel and credit patients. A significant finding of the study was that due importance was given to the discharge process of trustee patients as compared to general patients because of which the average amount of time taken in the discharge process of trustee patient was 1 hr 30 min while that of general patient was 2 hr 34 min. Average amount of time taken in the discharge process of panel, cash and credit patients was 6hrs 12 min, 2 hrs 34 min and 2 hrs 54 min respectively. Average time at which each unit/department gave discharge orders was 10:46 am. The average amount of time taken in the medicine return to pharmacy was 39 min while the average amount of time taken in billing was 1 hr 46 min. Total discharges that took place in a period of one month were 210, so on an average 7 discharges took place per day.

RECOMMENDATIONS :

- In order to continuously monitor the discharge process, the organization should establish a committee that would look into the entire discharge process in detail and convenes the stakeholders who are involved in the discharge process of the patient :
  Administrators, Patient flow coordinators, Public relation Officer, Medical staff, Billing staff etc.
- There should be a billing counsellor who would counsel the patients regarding their provisional bill on a daily basis so that there is no confusion regarding the final bill on the day of discharge.
- The administrators need to regularly collect, measure and report key performance indicators for continuous quality improvement that would improve the discharge process.
- To use HMIS in the hospital for every step involved in discharge process so that the amount of time wasted in by using manpower at every step can be reduced.
- The management should set fixed visiting timing for the consultants so that the process can become more streamlined and discharges can happen more evenly without any confusion.
- The billing staff should be increased on patient floors so that the workflow can become more smooth because as per the observation only one billing personnel was involved in the billing of both the floors.
- There should be provision of pneumatic chute so that files can be transferred more easily and in a timely manner between different departments
- The discharge summary should be made 12 hrs prior to the discharge and uploaded in the HMIS so that it can be finalized the next day once the consultant gives the discharge orders.
- A decentralized pharmacy should be there on patient floors too so that no time is wasted in medicine return of the patients.
- The management should study the discharge process and then accordingly set a benchmark or yardstick so that they can monitor the discharge process more vigilantly.
- In case of panel patients, the discharge orders should be gives as early as possible as

already a lot of time is consumed in arrival of approval etc.

- The housekeeping staff in the evening shift need be relocated from other floors to share the workload as there is only one ward boy available in the evening shift.
- The feedback forms should be continuously monitored to know the gaps in the services provided.
- It should be made mandatory to do regular provisional billing of all the patients on the floor so that there is less pressure on the day of discharge of the patient.
- The panel patients should be counseled well regarding the delay in the discharge process so that they are mentally prepared that their discharge process might take longer than expected.

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