Summer Training at
C.K. Birla Hospital/ RHB, Jaipur

In-Patient Discharge Process Management and Factors Causing Delay in Patient Discharge

By
Hemlata Sharma

Under the guidance of
Dr. Tanjul Saxena

MBA Hospital & Health Management
2017-2019

Institute of Health Management Research
The IIHMR University, Jaipur
2018

INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that **Ms. Hemlata Sharma** has successfully completed her summer training at **C.K.Birla Hospital ,Jaipur** from **2nd April , 2018 to 1st June , 2018.**

The candidate herself completed the project assigned to her during summer training. Her approach to the project was sincere and proactive. This summer training is partial fulfillment of the course requirement recommended for the award of MBA in Hospital & Health Management.

I wish her all the success in her future endeavors.

Dr. Tanjul Saxena

Associate Professor

IIHMR University, Jaipur .

(Col Dr) Pramod Kumar)
for **Col.(Dr.) Ashok Kaushik** 25.6.18

Dean (Academic & Student affairs)

IIHMR University, Jaipur.

1, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur- 302029, Rajasthan, India.
Ph.: 0141- 3924700, 2791431- 32, Fax: 0141 3924738, E-mail: iihmr@iihmr.edu.in, Web.: www.iihmr.edu.in

CK BIRLA HOSPITALS | RBH

Date: -15th June 2018

To whom so ever it may concern

This is to certify that Ms. Hemlata Sharma has successfully completed her internship training in IPD department from 2nd April 2018 to 1st June 2018.

We found her sincere, punctual & hardworking. We wish her every success in her future and career.

For BH

Ashwin Divakaran

Head – HR & Training

Acknowledgement

An individual cannot do project of this scale , I take this opportunity to express my acknowledgement and deep sense of gratitude to the individual for rendering valuable assistance and gratitude to me .Their input have played a vital role in success of this project & format piece of acknowledge may not be sufficient to express the feeling of gratitude towards people who have helped me in successfully completion of my training .

I would like to wish my sincere thanks to my project mentor Mr. Yogendra Awadhiya operations head of C.K.birla hospital and my faculty mentor Dr. Tanjul Saxena for their keen interest and giving valuable guidance at all stages of the study ,their advise constructive suggestions ,positive and supportive attitude and continuous encouragement, without which it would not have been possible to complete the project .

I firmly believe that there is always a scope of improvement, I welcome any suggestion for further enriching the quality of this report .

Acronyms/ Abbreviations

A&E – Accident and Emergency

LAMA- Leave against medical advice

COO- Chief Operating officer

CSSD- Central Sterile and Supply Department

CT- Computerized Tomography

HOD- Head of Department

ICU- Intensive Care Unit

SICU- Surgical Intensive Care Unit

MICU- Medical Intensive Care Unit

HDU- High Dependency Unit

NICU- Neonatal Intensive Care Unit

IPD- In-Patient Department

RBH- Rukmani Birla Hospital

Table of Contents

Introduction

C.K.Birla Hospital , comprises three landmark identities, CMRI (The Calcutta Medical Research Institute), BMB (BM Birla Heart Research Centre) and its recent venture, RBH (Rukmani Birla Hospital).

It has set milestones in the healthcare Industry for over four decades. The hospitals are intrinsically bound by three integrated philosophies — Clinical Excellence, Ethical Conduct and Patient Centricity. These operating philosophies have been pivotal in making the hospitals grow and serve people who are in need of quality healthcare.

The three units of CK Birla Hospitals, having established themselves in Kolkata and Jaipur , offer 800 plus beds with comprehensive outpatient and inpatient services, Working on a mission to providing quality healthcare for all, the hospitals so far have performed over 5.5 lakh successful surgeries, 1.9 lakh Cath lab procedures and 22,000 critical cardiac surgeries. Supported by the latest technology and modern infrastructure, these hospitals continue to set new standards of Cure and Care.

Vision

Patient at the core.

Mission

To Continuously create benchmarks in providing unmatched Patient Experience through Clinical and Service Excellence amidst an inclusive environment that embraces innovation and quality combined with compassion, commitment, accountability and transparency.

Commitment Towards Quality

To constantly upgrade our human and technological resources aligned with the best global developments in medical science.

Quality Policy Statement

To maintain highest standard of quality service delivery provided at the hospital

RBH (Rukmani Birla Hospital) is a 230 bed multi-specialty hospital, offering comprehensive in-patient and out-patient services in Jaipur. Laid on three key principles —

1. Clinical Excellence,

2. Ethical Conduct

3. Patient Centric approach,

This multi-specialty facility caters to the patients' need and makes sure that they and their families are being well looked after by a team of efficient doctors, caring and vigilant nurses, and an organized Medical service support.

The dedicated team at RBH is geared to achieve milestones in the healthcare sector, with its modern and upbeat outlook. With a vision to build high standards in clinical and serve excellence, RBH aspires to lead the wellness industry and lend a fresh approach to hospital management.

Specialty departments

SPECIALITY DEPARTMENT
Department of Bone and Joint
Department of Critical Care Medicine
Department of Dermatology
Department of Diabetes and Endocrine Sciences
Department of Dietetics

Department of Ear, Nose & Throat (ENT)
Department of Emergency Medicine
Department of Gastro Sciences
Department of General & Minimal Invasive Surgery
Department of Internal Medicine
Department of Laboratory Medicine
Department of Neurosciences
Department of Cardiac Sciences
Department of Anaesthesia
Department of Neurosciences
Department of Obstetrics and Gynaecology
Department of Opthalmology
Department of Osteopathy
Department of Paediatrics
Department of Pharmacology
Department of Physiotherapy
Department of Obstetrics and Gynaecology
Department of Opthalmology
Department of Osteopathy
Department of Paediatrics
Department of Plastic Cosmetic & Reconstructive Surgery
Department of Pulmonology and Critical Care
Department of Radiology
Department of Renal Sciences

Infrastructure
Lower Ground
OPD
General and Minimally invasive surgery
Bone and joint
Physiotherapy
Urodynamic studies
Endoscopy
Gastroenterology
Audiometry
Dermatology
Obstetrics and Gynecology
Internal Medicine
ENT
Pediatrics and Neonatology
Dental
GI& Bariatric
Rheumatology
Radiology
X-Ray
Ultrasound
MRI
CT Scan
Mammography
Bone Densitometry

Upper Ground
Main Lobby
OPD
Neurology/Neurosurgery
Emergency

Cardiology/CTVS
Pulmonology
Pharmacy
Osteopathy **Others (Preventive Health Check up)**
Endocrinology
Urology/Nephrology **Dialysis**
Ophthalmology
Plastic and Reconstruction surgery

First Floor

OT ICCU
Cath Lab SICU
MICU Day Care

Second Floor

Laboratory Science Blood Bank
IPD Bed No 2439-2444
IPD Bed No 2201-2224

Third Floor

IVF SCBU
NICU Labor Room
Maternity Triage Bariatric
IPD Bed No 3405-3435

Fourth Floor

IPD Bed No 4401-4445

Fifth Floor

IPD Bed No 5401-5432

Introduction

IN PATIENT DEPARTMENT

In – patient " means that the procedure requires the patient to be admitted to the hospital , primarily so that he or she can be closely monitored during the procedure and afterwards during recovery

- An inpatient is "admitted " to the hospital and stays overnight or for an indeterminate time ,usually several days or weeks. Treatment provided in this fashion is called in-patient

The IPD provide the detailed pre procedure needs their completion and coordination with the diagnosis to arrive at the diagnosis and completion of treatment regimens,comprehensive care in the preoperative and follow up care ,rehabilitative ,and nutritional regimented their scientific amalgamation as per the progressive patient care need.

IPD wards are located on the floor numbers 2,3,4,5. The IPD rooms are following types :single room ,twin sharing ,multiple sharing .

The various types of rooms with their features as follows

GENERAL WARD (2nd floor)

- Air conditioned
- Bed head panels with medical gases
- Nurse call system with two way communication

SINGLE ROOM

- Air conditioned
- Television set
- Bed head panels with medical gases
- Nurse call system with two way communication
- Couch for patient relatives

TWIN SHARING

- Air conditioned
- Bed head panels with medical gases

- Nurse call system with two way communication

MULTIPLE SHARING

- Air conditioned
- Bed head panels with medical gases
- Nurse call system with two way communication

Nurse bed ratio : 4:1

Discharge process

- **Discharge** from the hospital is the point at which the patient leaves the hospital and either returns home or is transferred to another facility such as one for rehabilitation or to a nursing home
- **Discharge** involves the medical instructions that the patient will need to fully recover

Discharge Planning is the process used to decide what a patient needs for a smooth move from the hospital to home or to the other level of care ,It is defined as the process of activities that involves the patient and the team of individuals from various disciplines working together to facilitates the transfer of patient from one environment to another.

Discharge planning process (DPP) is a complex process that occurs when the patient leaves the facility .As the last step of the hospital experience, the discharge process is likely to be well remembered by the patient as well as relative of the patient .Even if everything else went satisfactory ,a slow ,frustrating discharge process can result in low patient satisfaction. It is an important area which touches the patient's emotion; influence the image of the hospital and patient satisfaction .Soon after completion of treatment , the patient as well as his or her escorts expects to be relived off immediately .The delay in discharge process leads to dissatisfaction and affect the image of hospital.

Review of Literature :

The study was done in Iran to analyze the waiting time for discharge .The author Sima Ajami (2007) collected the data using questionnaires, observation and checklist, Average waiting time for all the wards was found to be 4.93 hours ,The main reason identified for the delay were delay for the discharge summary completion, lack of proper guidelines for the staff involved in the discharge process and absence of Hospital information networking system.(1)

According to JanitaVinaya Kumari(2012) the discharge and billing process is more likely to be remembered by the patient .A study was conducted in a tertiary care teaching hospital to calculate the average time taken for the discharge of the patient ,for the purpose of collection of data the study registers were designed and kept in wards and the billing office,2205 patient records were analyzed .The Average time taken for the discharge of the patient was 2 hours and 22 minutes.(2)

According to Silvaet.al(2014) ,the main reason for discharge delays are the processes and can be improved by appropriate interventions .the study was conducted in two teaching hospitals by reviewing the medical records of the patient admitted to the internal medicine ward .the delays in discharges that occurred in two hospitals were 60% and 50.7% respectively .the main reasons identified for the delays were waiting for the test reports, delays in making clinical decisions and in providing specialized consultation.(3)

Research Question :
1. How much time taken in discharge process.
2.What are the reasons for discharge delay.

Aim of the study – To study The discharge process management and observe and record the time needed for completion of discharge process and factors causing delay

Objective

To evaluate the in-patient discharge process at C.K.Birla Hospital
To calculate Turnaround time (TAT) of discharge process
To study and find out the major causes that leads to delay in discharge process

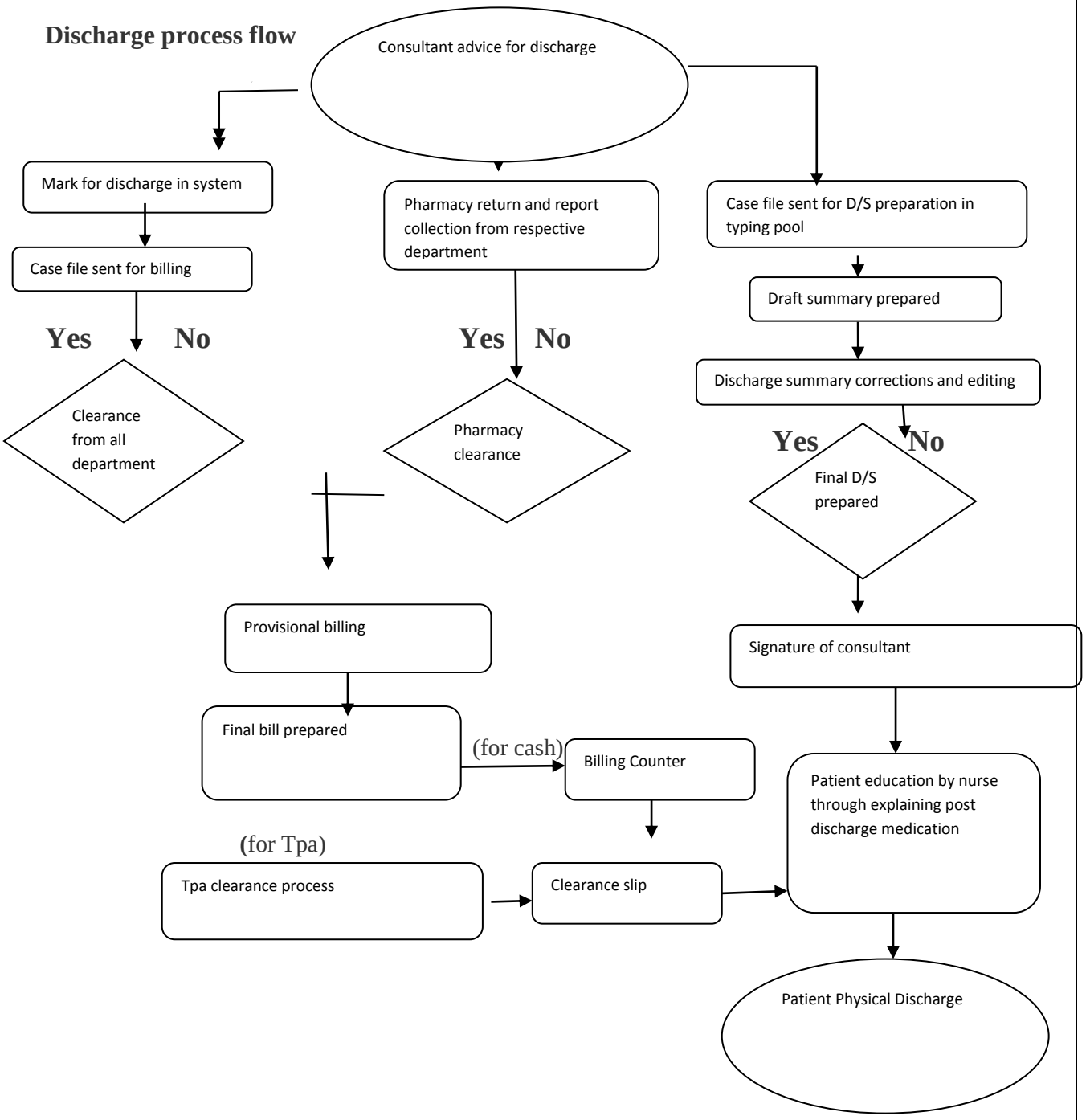
Research Methodology

Study design : Observational ,Descriptive, Quantitative study
Location of the study : The study was conducted at C.K.Birla Hospital, Jaipur
Study duration:2nd April to 2nd June 2018
Study subject: Patient who are admitted in the C.K.Birla Hospital
Sampling method: Purposive sampling
Sample Size: 110 in patients
Type of data: Primary data
Design Tool: The tool used for data collection was self administered tabulated format for each day .
The aspects that were included for the purpose of collecting the data of in-patient are-

- Name of the patient
- MRN (id)no of patient
- Type of patient (cash/TPA)
- Admission and Discharge date
- Time of discharge advised by consultant
- Mark for discharge mentioned on system
- Time taken in Billing completion
- Time taken after billing completion
- Patient physical discharge time

Data collection: After designing the tool for data collection ,the data was collected and recorded by observing and tracking all the patients planned and unplanned discharge for a day. Also by communicating with nurse in charge and floor coordinator to determine the reason for delay in discharge and classify them as per discussion.

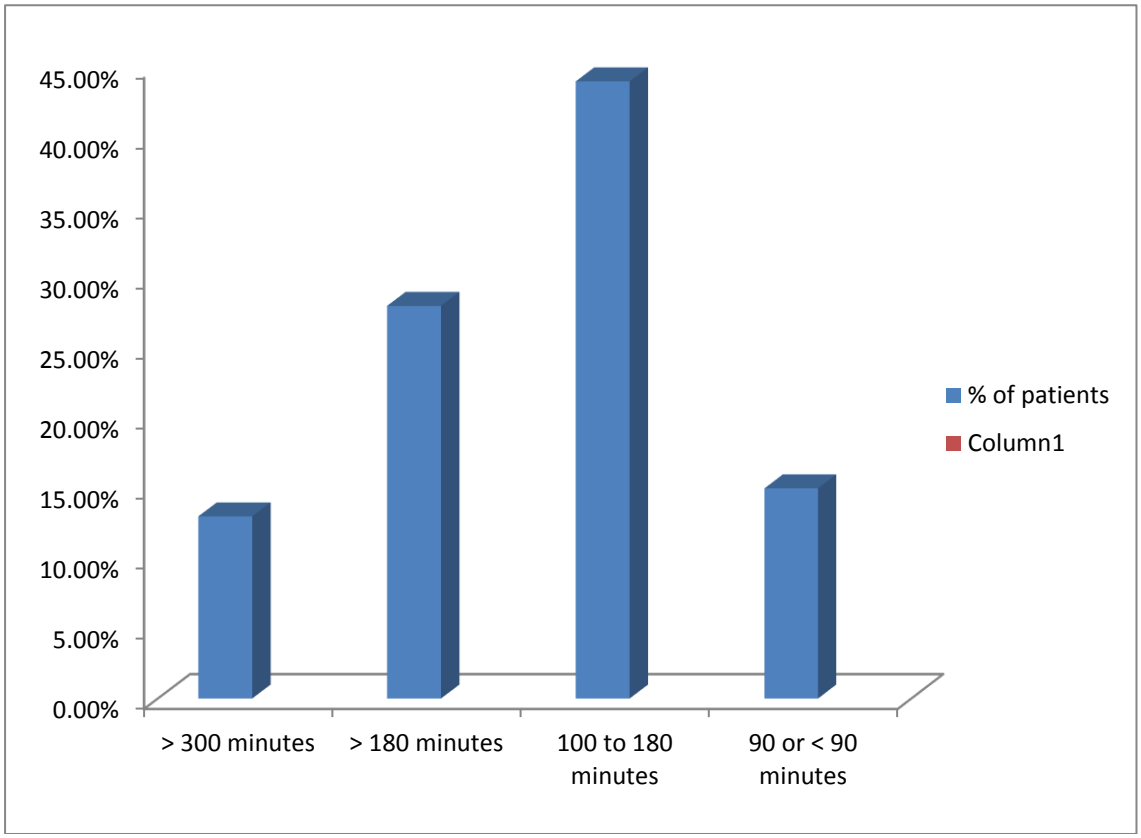
Data Analysis: MS EXCEL


Discharge process flow
Consultant advice for discharge
Mark for discharge in system
Case file sent for billing
Yes
No
Clearance from all department
Pharmacy return and report collection from respective department
Yes
No
Pharmacy clearance
Case file sent for D/S preparation in typing pool
Draft summary prepared
Discharge summary corrections and editing
Yes
No
Final D/S prepared
Provisional billing
Final bill prepared
(for cash)
Billing Counter
(for Tpa)
Tpa clearance process
Clearance slip
Signature of consultant
Patient education by nurse through explaining post discharge medication
Patient Physical Discharge

Data Analysis and Interpretation

During the project 110 patients included in the study and the average time taken in the discharge process is 178 minutes(2 hours58 minutes).

…..



Interpretation : This graph shows that about 44% patient got discharged 100 to 180 minutes, 28% patient got discharged in more than 180 minutes, 13% patient got discharged more than 300 minutes and only 15% patient got discharged in 90 or less than 90 minutes.

Total patients : 110 patient

CASH	TPA
75	35

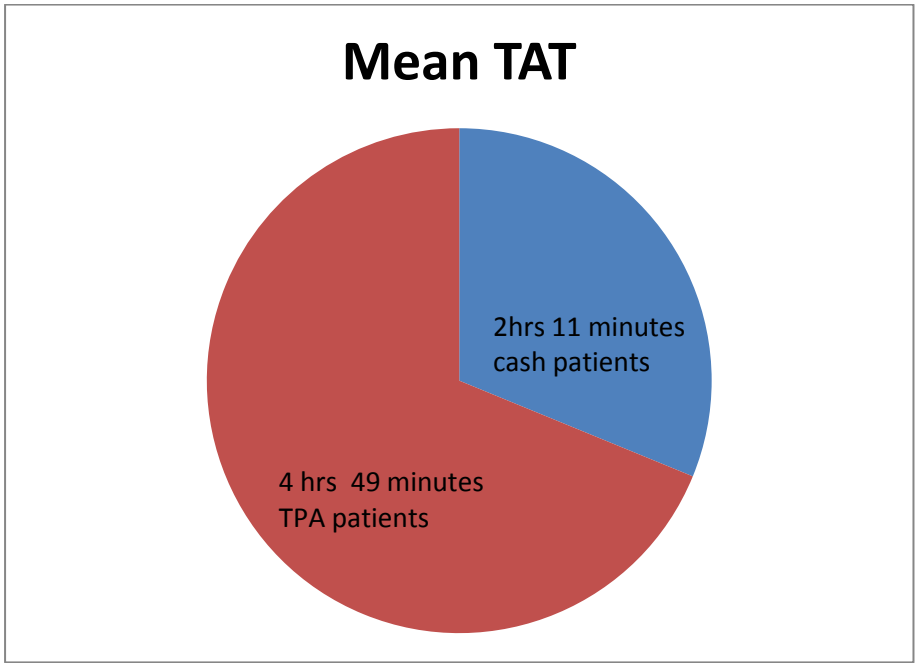
Cash (75) patients

Planned	Unplanned
40	35

- TPA (35) patients

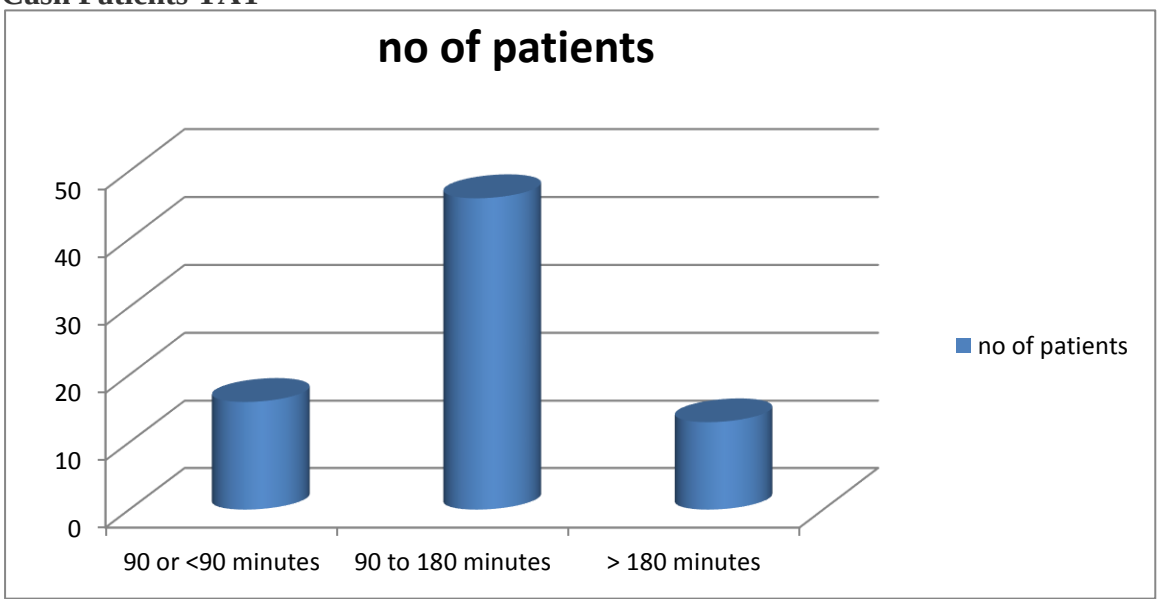
Planned	Unplanned
20	15

Turn around time Analysis (APRIL)



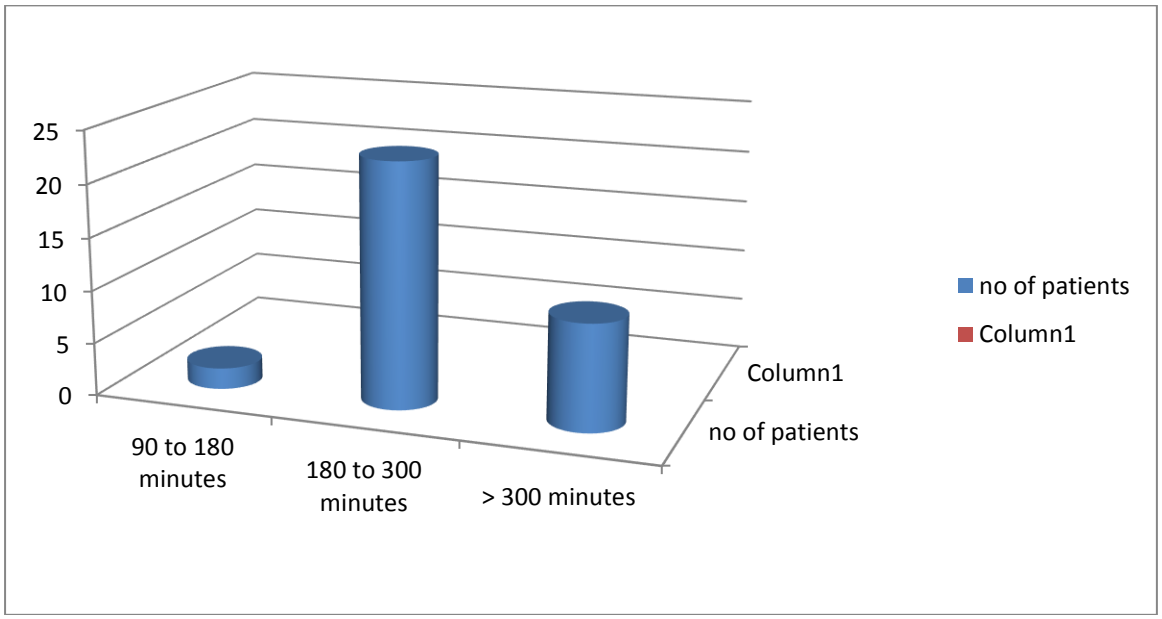
Interpretation: This analysis shows that Average Turn around time (TAT) for cash patients is 2 hrs 11 minutes (131minutes), and Average Turn around time (TAT) for TPA patients is 4hrs 49 minutes(289minutes).

Cash Patients TAT



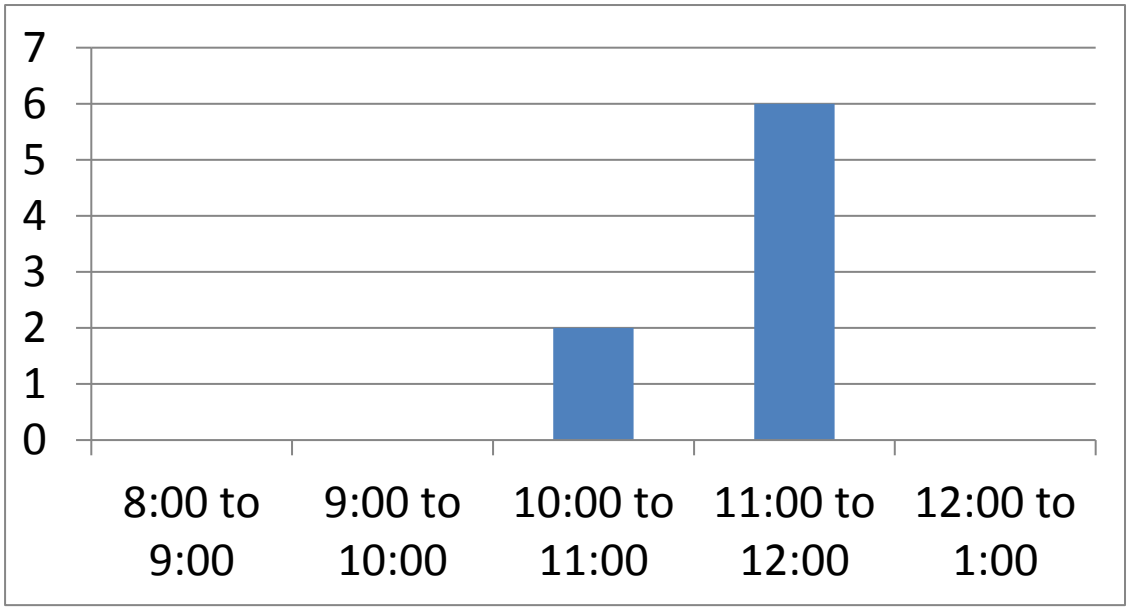
Interpretation: This graph shows that out of 75 patients 46 patients got discharged between 90 to 180 miuntes, 16 patients got discharged in less than 90 minutes and 13 patients got discharged after 180 minutes

TPA Patients TAT



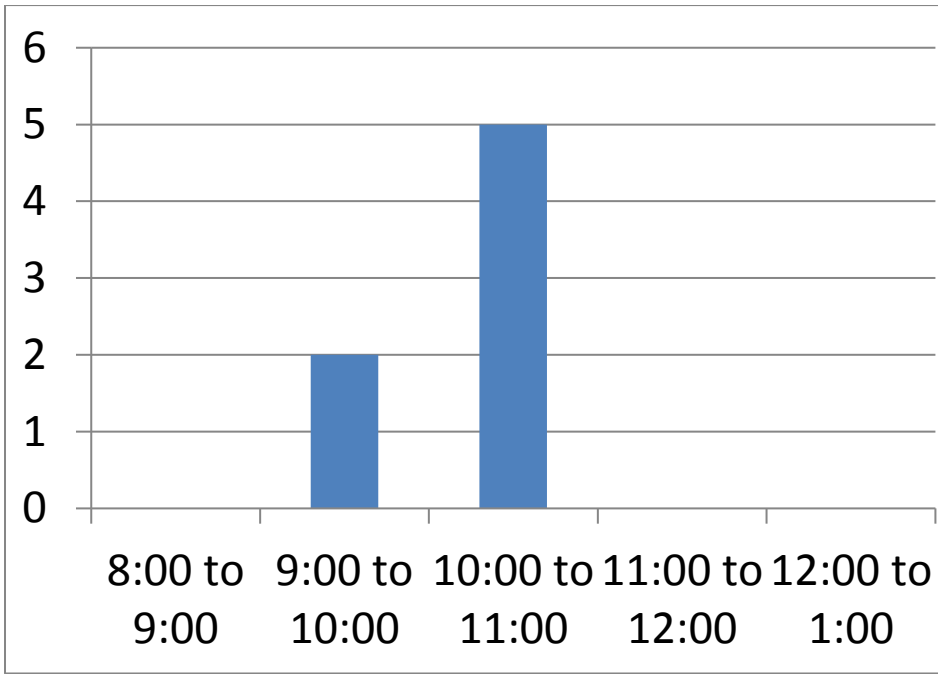
Interpretation: The graph shows that out of 35 patients ,Average TAT of 23 patients is between 180 to 300 minutes , 10 patients got discharged after 300 minutes and only 2 patients discharged between 90 to 180 minutes.

Doctors round graph (2nd Floor)



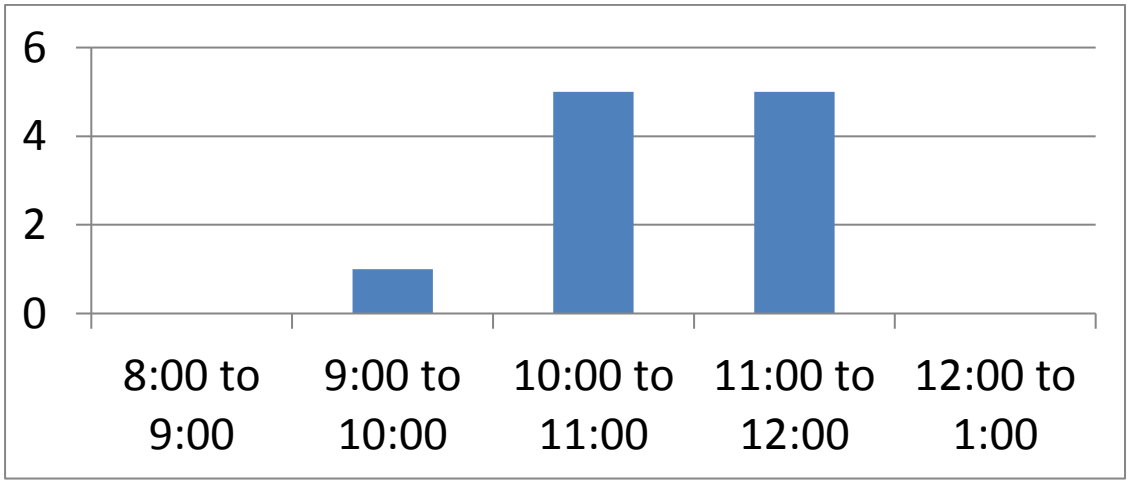
Interpretation: This graph shows that on 2nd floor 2 doctors came for In-patients rounds between 10:00 to 11:00 am and 6 doctors came between 11:00 to 12:00 .

Doctors round graph (3rd Floor)



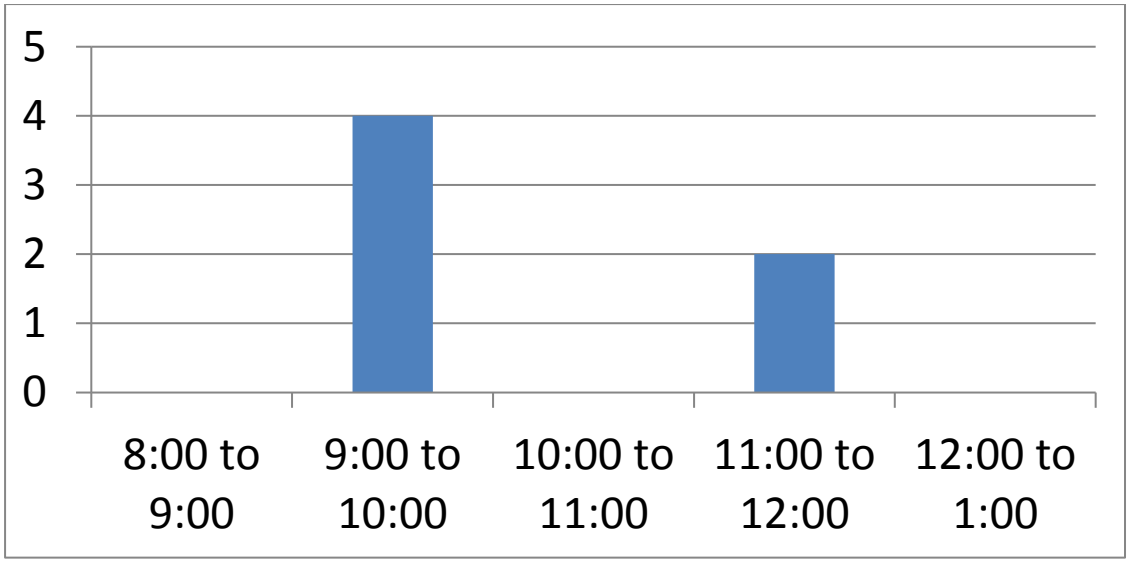
Interpretation: This graph shows that on 3rd floor 2 doctors came for In-patients rounds between 9:00 to 10:00 am and 5 doctors came between 10:00 to 11:00am .

Doctors round graph (4th Floor)



Interpretation: This graph shows that on 4th floor 1 doctor came for In-patients rounds between 9:00 to 10:00 am and 5 doctors came between 10:00 to 11:00am ., 5 doctors came between 11:00 to 12:00.

Doctors round graph (5th Floor)



Interpretation: This graph shows that on 5th floor 4 doctors came for In-patients rounds between 9:00 to 10:00 am and 2 doctors came between 11:00 to 12:00.

Discharge delay Reasons

- Delay due to Doctors
- Delay due to Nursing staff
- Delay due to Typing pool
- Process and Organization
- Delay due to IT challenges
- Delay due to Pharmacy

Delay due to Doctors

1. Delay in consultant rounds
2. Discharge summary not signed on time
3. Template of discharge summary not filled by resident doctors

Delay due to Typing pool

1. Delay due to editing in discharge summary
2. Lack of knowledge of medical terminology in typing pool staff
3. Lack of manpower
4. Treatment,diagnosis and procedure not mentioned by doctors on file
5. Resident doctors do not come on time in guiding to prepare discharge summary
6. Delay due to consultant sign
7. Delay in corrections of discharge summary

Delay due to Nursing staff

1. Delay in explaining medicines at the time of discharge
2. Late nurse response
3. Lack of proper coordination between respective departments
4. Delay in sending billing files

5. Lack of proper coordination between medical and nursing staff
6. Busy in completing patient case files

Delay due to Process and Organization

1. Under utilization of GDA staff
2. Lack of proper coordination between Departments
3. Delay in food delivery
4. Delay in calling transport pool for taking files and patients
5. Poor early discharge planning
6. Delay in insurance clearance

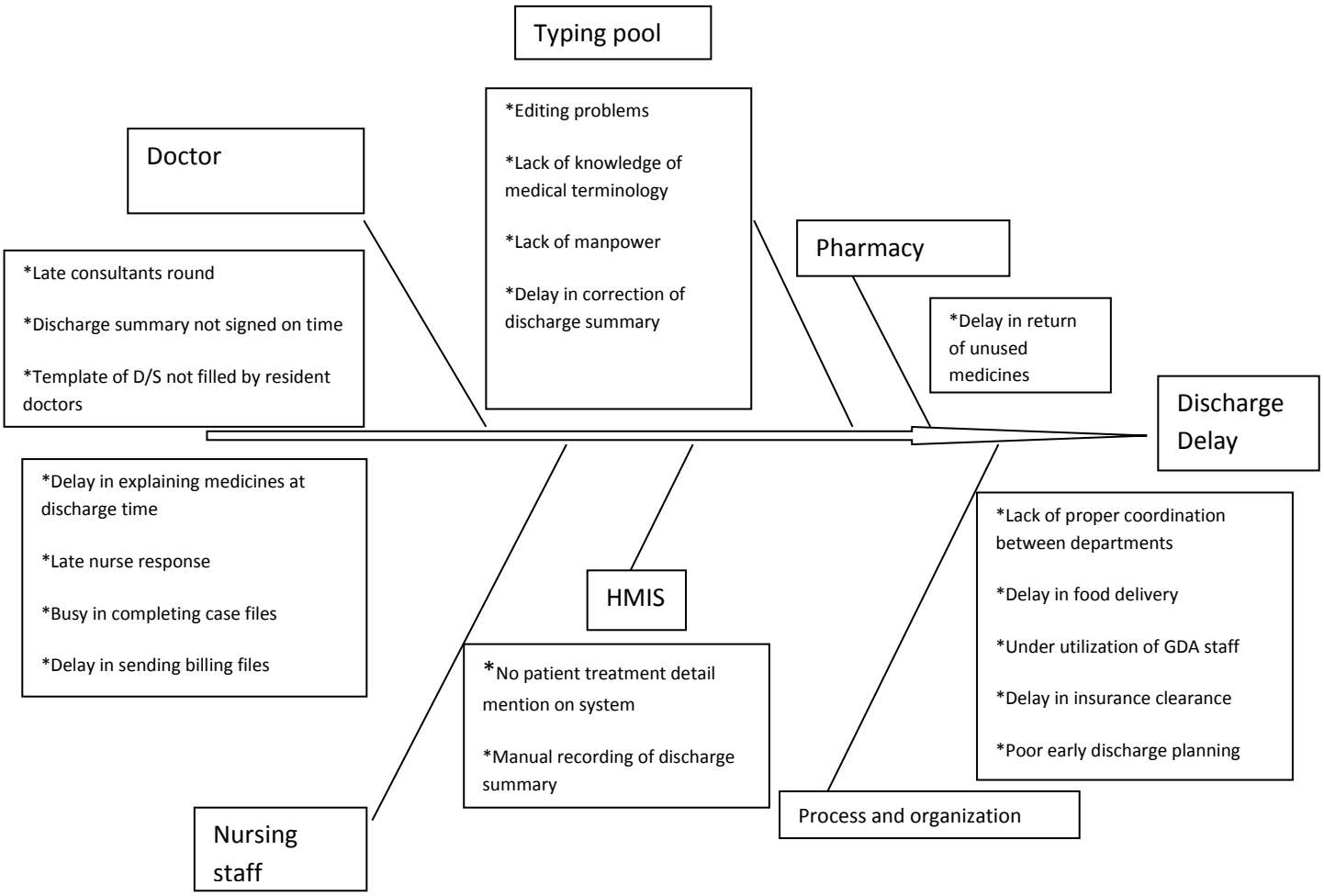
Delay due to IT challenges

1.No patient treatment detail mention in HMIS system

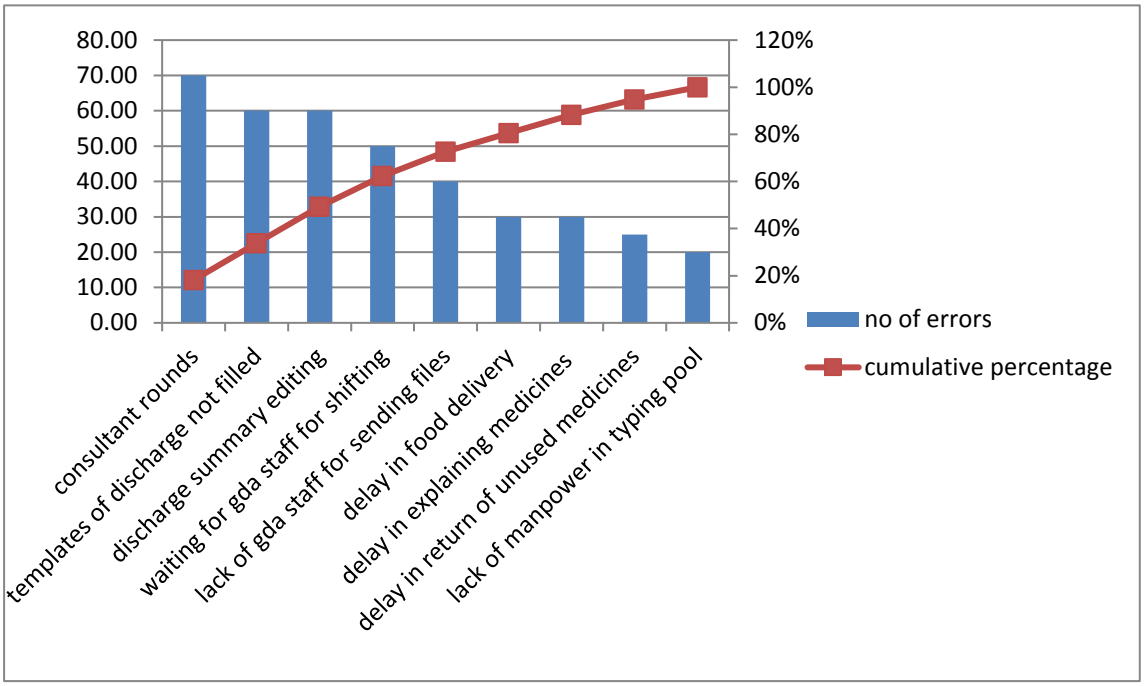
2.Manual recording of discharge summary

Delay due to Pharmacy

1. Delay in return of unused medicines
2. **FISH BONE DIAGRAM OF DISCHARGE DELAY**



PARETO ANALYSIS



This analysis shows that 80% of Discharge delay due to 20% errors , mainly discharge delays were due to consultant rounds , Template of discharge summary not filled by resident doctors ,Discharge summary editing problems

Discussions and Conclusion

In this study we collected data of 110 patients, we found that the mean time for the completion of discharge process was 2 hours 58 minutes. In 110 patients,75 were Cash patients and 35 TPA patients .The Turn around time for Cash patients was 2 hours 11 minutes, and for TPA patients 4 hours 49 minutes.

The main reason for the delay in the discharge process was late consultant rounds, template of discharge not filled by resident doctors and Discharge summary editing problems.

Discharge planning can reduce the total time of discharge process considerably and also helps in reducing the clearance time by different departments .An effort should be made to plan as many as discharge as possible to enhance the discharge process flow.

Recommendations

- Fix time duration of Doctors round
- Resident doctors fill the discharge templates
- Update the patient case file daily
- Return discontinued medications daily in the wards
- Early intimation of discharge through the system to all the respective departments
- Preparation of data base sheet which contains full detail of patient
- Training of GDA staff
- Expected planned discharges should be actively followed except emergency conditions
- Availability of summary typist in various floors can save movement of files time and physicians for corrections and signatures

References:

1.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2655791/

2. http://rbh.ckbirlahospitals.com/ck-birla-hospitals/

3. INTERNATIONAL JOURNAL OF MANAGEMENT AND APPLIED SCIENCE, ISSN: 2394-7926 Volume-2, Issue-10, Oct.-2016 **[1] SHOBITHA SUNIL, [2]SARALA K.S., [3]R G SHILPA**