Turn Around Time of Discharge Process

Internship Training
at

Asian Heart Institute and Research Centre

By
Anuradha Bose

Under the guidance of
Dr. Santosh Kumar

Post Graduate Diploma in Hospital & Health Management
2012–14

Institute of Health Management Research
Jaipur
2014

INSTITUTE OF HEALTH MANAGEMENT RESEARCH
1, Prabhu Dayal Marg
Sanganer Airport, JAIPUR - 302 011, INDIA
Tel. : 3924700, 2791431-32
Fax : 91-141-3924738
E-mail : iihmr@iihmr.org
URL : http://www.iihmr.org
Gram : HEALTHINST

TO WHOMSOEVER MAY CONCERN

This is to certify that Dr. Anuradha Bose student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management Research, Jaipur has undergone internship training at Asian Heart Institute & Research Centre from 13th February, 2014 to 15th May, 2014.

The Candidate has successfully carried out the study designated to him during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all his future endeavors.

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

Dr.Santosh Kumar
Associate Professor
IIHMR, Jaipur

May 28, 2014

ASIAN HEART INSTITUTE

THE HIGHEST ACCREDITED HOSPITAL IN INDIA

ISO 9001:2000 CERTIFIED

JOINT COMMISSION INTERNATIONAL

NIAHO®

No. AHIRC/HR/TL/2014/13

Date: 30th April 2014

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Dr. Anuradha Bose has completed her dissertation in Department of Quality and has successfully completed her project on

"Turn around Time on Discharge Process" from March 15th, 2014 to April 30th, 2014 at Asian Heart Institute & Research Centre Pvt. Ltd.

She is a committed, sincere and diligent person who has a strong drive and zeal for learning.

We wish her all the success in all her future endeavors.

Dr. Tanuja Gaikwad
Quality Executive
AHIRC,Mumbai

Dr.Akshay Arora
Head - Human Resource
AHIRC,Mumbai

ASIAN HEART INSTITUTE

ASIAN HEART INSTITUTE

Every heart deserves the best

Asian Heart Institute & Research Centre Pvt. Ltd.
G/N Block, Bandra-Kurla Complex, Bandra (East), Mumbai - 400 051.
Tel. : (91-22) 6698 6666 ◆ Fax : (91-22) 6698 6506 ◆ E-mail : info@ahirc.com ◆ Website : www.asianheartinstitute.org

INSTITUTE OF HEALTH MANAGEMENT RESEARCH
1, Prabhu Dayal Marg
Sanganer Airport, JAIPUR - 302 011, INDIA
Tel. : 3924700, 2791431-32
Fax : 91-141-3924738
E-mail : iihmr@iihmr.org
URL : http://www.iihmr.org
Gram : HEALTHINST

INSTITUTE OF HEALTH MANAGEMENT RESEARCH, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "Turn Around Time of Discharge Process in Asian Heart Institute and Research Centre" and submitted by Dr. Anuradha Bose Enrolment No. IIHMR/PGDHM/2012-14/17-1296 under the supervision of Mr. Santosh Kumar for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from February 13, 2014 to May 15, 2014 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature: Anuradha

Date: 28/05/14

ACKNOWLEDGEMENT

I am indebted to all the professionals at Asian Heart Institute and Research Centre, Mumbai for sharing generously their knowledge and precious time which inspired me to do my best during the summer training.

I take this opportunity to express my gratitude to **Dr. Tanuja Gaikwad (Quality Executive)** mentor for the dissertation, without whose help it would not have been possible to understand the structure, functioning and hospital operations. I also thank **Dr. Akshay Arora (Head Human Resource)** for his guidance and unconditional support.

I am also thankful to **the staff of AHIRC** for their guidance and help during the project on Turn Around time of Discharge Process in Asian Heart Institute and Research Centre, Mumbai.

It was a privilege to work and learn under the dynamic supervision of the management and other functionaries of the hospital. I am grateful to all the department heads and staff for giving me guidance in spite of their hectic schedule. Without their active cooperation and participation it would not have been possible to accomplish my task.

I offer my sincere thanks to **Dr. S. D Gupta** (Director, IIHMR Jaipur), **Col.A.Kaushik** (Dean Academics and Students Affairs, IIHMR Jaipir) and my guide **Dr.Santosh Kumar** for their constant encouragement.

Contents

Hospital Profile

Asian Heart Institute (AHI) has been set up with an aim to provide world-class cardiac care in India. It is situated at the Bandra-Kurla Complex (BKC), a mere 15-minute drive from the domestic and international airports. The hospital promises to provide quality cardiac care to patients at reasonable costs.

A dream of **leading cardiac specialists of Mumbai**, led by **Dr. Ramakanta Panda**. AHI was set up with a holistic approach to heart care based on Ethics, Quality Care and the best of Professionals backed by competitive prices. It prides itself on Quality in terms of Design, Patient Care, Medical, Paramedical and General Staff and Infrastructure Facilities.

The hospital has a Patient-centric design with stress on safety and comfort of Patients. All Patient areas have been designed to minimize the risk of infection. Internationally accredited with ISO 9001:2000, JCI & NIAHO, AHI reaffirms its commitment towards world class cardiac care by being **India's Highest Accredited Hospital**

Vision

Globally preferred center of excellence

Mission

To operate as a world class heart hospital, incorporating the latest technological advances and ethical practices to provide quality heart care at a reasonable cost.

Core Values

- ✓ Customer Satisfaction
- ✓ Highest Quality
- ✓ Culture of High Performance
- ✓ Integrity & Ethical Practices
- ✓ Innovation & Change

QUALITY IN HEALTHCARE.

Health care's increase in quality management has followed the lead of the manufacturing industry, originally focusing on retrospective review of products and outcomes and eventually undertaking concurrent reviews focussed on processes. Critical to such reviews is a health care organizations use of an information system that incorporates departmental data into a hospital-wide framework, includes objective criteria for evaluating procedure and outcomes, and tracks modification to an organization's processes for care delivery. The goal of an integrated, patient-centred information system is to establish a continuous cycle for improving clinical and administrative quality within an organization.

Improving quality while simultaneously reducing costs has replaced cost containment alone as the critical concern facing hospitals. Hospitals are discovering a need to collect data on quality and demonstrate the patient care provides quantifiable benefits, including positive outcomes, wellness, and value at all levels of an institution. Still, total quality management (TQM) programme implemented at many hospitals primarily focus on improving administrative and ancillary processes. A vital but often neglected aspect of TQM is clinical patient care, the area in which continuous quality improvement promises the greatest return for the hospitals. Designing information systems to support a patient-centred, dynamic quality control process is one of health care's greatest challenges today. By identifying managing the link between quality and cost, hospital can reduce costs and achieve continuous quality improvement.

INTRODUCTION

Discharge, by definition is to formally terminate a patient's care and releasing him/her from the hospital or health care facility. A patient discharged only when he/ she have recovered fully or satisfactorily according to concerned physician.

It is imperative to have a timely discharge. A delayed discharge has an impact on the physical, mental, emotional and psychological stems of the patient and also has negative financial implication on the hospital. A patient staying longer than the stipulated time is responsible for unnecessary utilization of the hospital resource and is sheer waste.

"A good Discharge experience leaves the patient with positive emotions and strong affinity for returning to the facility"- Paul Clark. [(1)]

A hospital is the centre for cure but one cannot rule out it being a source of infection especially to the vulnerable individuals. One such vulnerable category is patients who have just recovered from their illness and are ready for discharge.

It is in the interest of hospital to hasten the discharge process as...

- ✓ It will reduce the chance of hospital acquired infection for the patient.
- ✓ Better experience as the patient leaves.
- ✓ Reduce anxiety and restlessness of patient and the family.
- ✓ The bed is made ready for the next patient who is more in need.
- ✓ Better and apt utilization of resource per bed.

Delayed Discharge (sometimes referred to as delayed transfer or bed locking), refer to the situation where a patient is deemed to be medically well enough for discharge, but, where the patient is unable to leave the hospital due to slowing down of the entire process.

A patient visiting a hospital expects complete care from the time of admission to the time of discharge, along with, complete medical care advice. Although most of these expectations are met, the patient still eager to leave the hospital premises at the earliest possible. Discharge process still remains an area of concern in terms of time taken for its completion.

Lengthy ineffective process for inpatient discharge is a common concern of hospitals, as it is an important factor remaining in patient dissatisfaction and a negative image of the hospital at the time of leaving of hospital which may remain in the memories.

A major weakness of the discharge process is the relative lack of attention to detail from the hospital team at the time of discharge, compared to the admission process. The energy with which we approach a new admission often decreases to that which is needed solely to get the patient out of the door. This further leads to an increase in patient anxiety and apprehension, subsequently resulting in a negative cascading effect on the hospital routine, as well as, the patient's routine.

The development and improvement in the discharge process require a detailed insight into the discharge process being followed and the understanding of the reasons for delay in the hospital.

AIM

To study discharge process in Asian Heart Institute along with gap analysis of discharge process.

RATIONALE

The hospital faced heavy revenue loss and dissatisfaction among the discharge patient due to delay in discharge process. This also resulted in delay in new admission of patients.

OBJECTIVES

1. To study the inpatient discharge process in Asian Heart Hospital, Mumbai.
2. To study the Turnaround Time of discharge process .
3. To study the gap analysis of the process being followed against the standard process to be followed.
4. To study the problem faced by various stakeholder in the discharge process.

REVIEW OF LITERATURE

- **Study at CRH on Improving Inpatient Discharge Cycle Time and Patient Satisfaction[2].** Columbus Regional Hospital a 325 bed hospital did a project on patient satisfaction in 2005. Stately found that patient satisfaction was profoundly impacted by appropriateness of discharge process of the patient from hospital to home or interim care centre. Only 47.6% of the patient named timelines if the discharge process is very good when they started the study. A preliminary review of the discharged process revealed that much of the work was deferred until the day of discharge. Based on the findings, the team revealed the discharge process of the patient, loading more action earlier in the patient's stay. These were

    i. **During the pre admission testing (PAT), Surgery patient:**

        - Learn the anticipated discharge date and time
        - Receive pre-printed discharge instruction, including supplies needed at home after discharge and where to purchase them.

    ii. **During patient stay:**

        - Patient with one of the five top medical diagnosis receive pre-printed instructions.
        - Anticipated discharge date and time is communicated to physician, staff, patient and patient family.
        - **Patient pre-purchase supplies for use at home.**

    iii. **On the day of discharge:**

        - Night shift nurse prepares the notes and complete the process also issues the medication reconciliation and arrange physician follow up.
        - Attending physician confirms medication recons illation.

    iv. **If the patient is discharged sooner than expected:**

        - The chart id flagged by the attending physician.

A control plan was put in place to ensure that these improvements would continue in future control charts were used to monitor ongoing performance of the key variables.

Using the Lean Six Sigma methodology, implementation of their findings greatly reduced the cycle time required so discharge the patient from a basleine average 202 minutes to 115 minutes- while improving patient satisfaction from baseline of 47.6% to 76%. Finally the team was able to record the target of $29.67 for the cost of not chargeable items per discharge, resulting in financial saving to hospital.

- **A Patient flow Logistics coordination Model by Ben Sawyer[3]:**

  Both Sawyer, Executive Vice President of Market and Client Development for patient Placement systems proposed a patient flow logistics coordination model for improving the discharge process of the patient from hospital. His model was based on the fact that the patient care suffers because of the fragmentation of health care delivery services. This fragmentation is among disciplines, among departments, among organizations, and among geographic location social worker serve as epicentre of the fragmented delivery system as they are associated with the patient from admission to discharge even including facilities post hospital care. These constrains contribute to delayed discharge and other problems. Ben Sawyer used technology for the coordination of various fragments and gave A Patient Flow Logistic Coordination Model.

  In the PFL, an initial resource plan of care is determined for each new patient admitted to the hospital. Effective discharge can begin upon patient admission by implementing a Patient Flow Logistic Coordination Model. This approach can consist many moving parts of the health care delivery process and better manage the complexity of discharge planning.

- **A Study by Eric J. Collier on Discharge planning, nursing home placement, and the Internet.**

  Eric j. Collier, a Doctorial student of The Department of Social and Behavorial Sciences, School of Nursing, University of California, San Francisco along with his professor Charlene Harrington carried out a descriptive study with a convenient sample of 4 discharge planner and case managers should play a more central role in planning discharge programme. The wide spread use of internet based information source can be expanded to aid this process. This study also specified the various role and skills of the discharge planner and case managers.

- **A Study by Lees,L., Delpino, R. Facilitating an effective discharge from hospital by (2007)[5]**

  During January 2007, a discharge project was established to improve multidisciplinary team communication and coordination of the patient's progress through the discharge process. The project involved a local agreement to adjust the information displayed on the ward central patient location board to include relevant patient discharge information. Ward staff agreed to participate actively in the project for a month; the work that commenced during the project has continued to date.

  For the purposes of the project, it was agreed to display eight items of patient and discharge information. This was based on the nature of the ward (orthopaedic) and the usual discharge process/pathway for such patients.

  Discharge Information

  1. Patient's name
  2. Consultant
  3. Date of admission
  4. Length of stay (or estimated date of discharge)
  5. Occupational therapy
  6. Physiotherapy
  7. Surgical outreach team
  8. Tablets to take home requested

  The project was evaluated across the whole multidisciplinary team involved using individual questionnaires with eight focused questions to assess the staff feelings towards the change in practice.

  From the study it was concluded that the integration of discharge planning information on the patient boards has enabled the MDT to work more closely to benefit the patient through a more effective and efficient discharge process. Use of the boards promotes openness about discharge elements with the patient and family/carers to make the discharge happen. The patient boards provide a summary of key discharge actions that are in progress.

- **A study of patient discharge from a care unit for elderly people by Department of Nursing Studies, University of Southampton, Hampshire, England[6].** The purpose of this study was to examine the process of discharge and move away from the snapshot study of discharge outcomes Interviews were undertaken with elderly patients, their carer and the hospital and community staff involved in their care A content analysis of the data revealed a distinctive discharge process which started with admission and ended with the patient leaving hospital Discharge planning was highlighted as a separate component of

this process A number of examples are examined of how vulnerable to breakdown patient discharge can be.

- **A Tool for Improving Patient Discharge Process and Hospital Communication Practices: the Patient Tracker by Christopher G. Maloney[7].**

  They developed and implemented a web-based software application called "Patient Tracker" to manage the discharge process, minimize delays in admission and reduce surgical procedure cancellations. We also tested the effectiveness of the software on the work flow by comparing outcomes between the pre-implementation control group (2002–2003) and the post-implementation experimental group (2003–2006). It was concluded that compared to the pre-invention period, overall the number of cancelled surgical procedure decreased. The median length of stay decreased and the average number of inpatient admission increased also increased post intervention.

METHODOLOGY

The study conducted on focused activities.

- Discharge process currently followed in the hospital
- Process mapping of the discharge process.
- Time taken at each step.
- Analysis of the process and time taken in each department involved in the discharge process
    - Nursing station
    - Patient care department
    - Billing Department
    - Insurance Department (TPA)
    - Doctors Activity.

The approach for the project involved 3 steps

- Project design
- Data Collection
- Data Analysis

PROJECT DESIGN

To identify the areas responsible for the delay in discharge process, it was first important to understand the process being followed in the hospital. Hence, a process map was developed and a track of activities and the time at which activity was done was noted.

Study Design- Cross-Sectional

Study Area- Asian Heart Institute

Sampling- Non-Probability purposive sampling

Sample Size – 426

Duration of study – 45 day (15^{th} March – 30^{th} April'14)

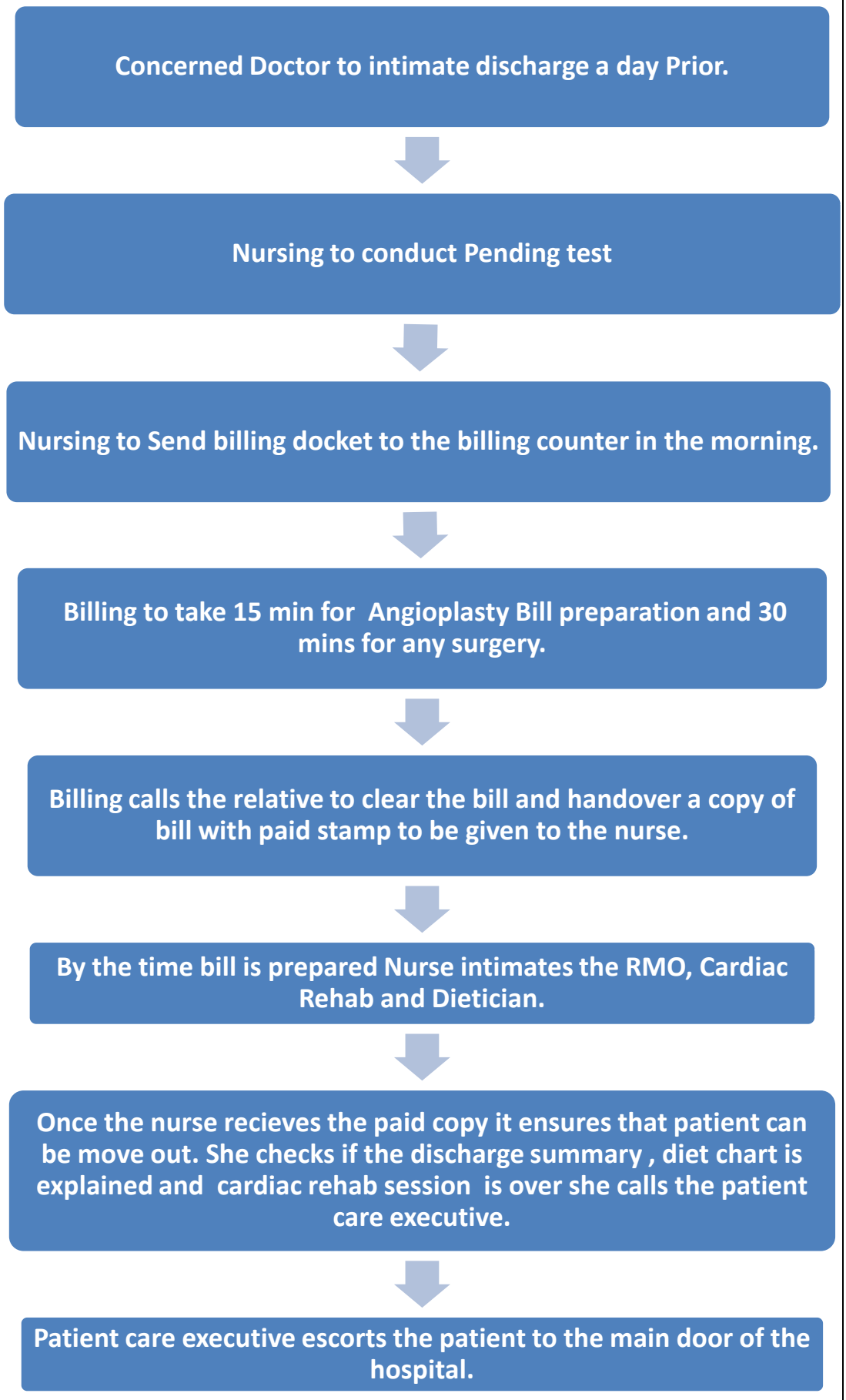
Inclusion Criteria- All IPD discharges occurring from 8am to 8pm

Exclusion Criteria- Discharge against Medical Advised and Discharges after 8 pm

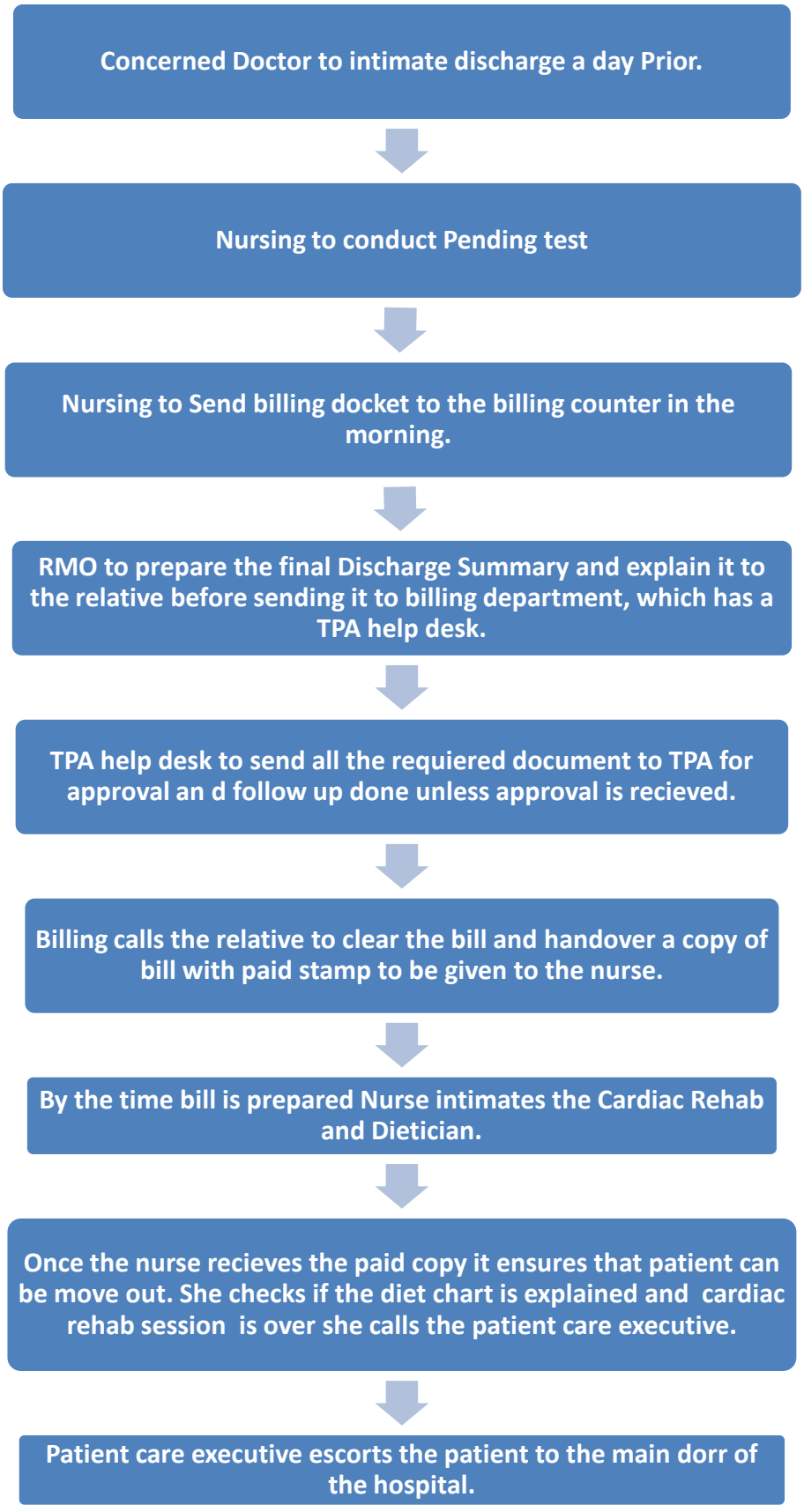
According to the standard operating procedure of Asian Heart Institute & Research Centre the total time taken to for discharges are-

1) Cath Lab Procedure- 60 min
2) OT procedures – 90 min
3) TPA procedures – 180 min

Process Mapping of Discharges in AHIRC



Process Mapping of TPA Discharge



DATA COLLECTION METHOD

A time motion study was conducted to observe and analyse the movements made by the staff who were involved in the discharge process. 5 time-lines were identified and followed (as explained below) with full cooperation from AHIRC and its staff. List of patient who was declared medically fit for discharge or patient scheduled for discharge was collected. Data does not include patients who took discharge against medical advice.

1. Marked for discharge- It's the time when Doctor has agreed on patient discharge and the process is to be initiated.
2. Clinical Discharge- When patient gets a pharmacy clearance.
3. Bill Ready- Once the clinical discharge is done billing is to be initiated and bill made should be accurate in a specific time.
4. Financial Discharge- the time when patient or relative clear off the bill.
5. Physical Discharge- when patient finally leaves the room.

A template (Annexure-1) was prepared to note down Patient Name, AH number (unique identification number for each patient), Consultant Name, Marked For Discharge Time, Clinical Discharge Time, Bill Ready Time, Financial Discharge, Physical Discharge Time. It was also observed that on an average housekeeping took half an hour to clean the room.

Source of Data-

Primary Data-

- Direct Observation
- Interaction with nursing, billing and pharmacy staff.
- Participation in some discharge Process for getting accurate data

Secondary Data-

- Time extracted from HIS
- Data extracted from patient File.

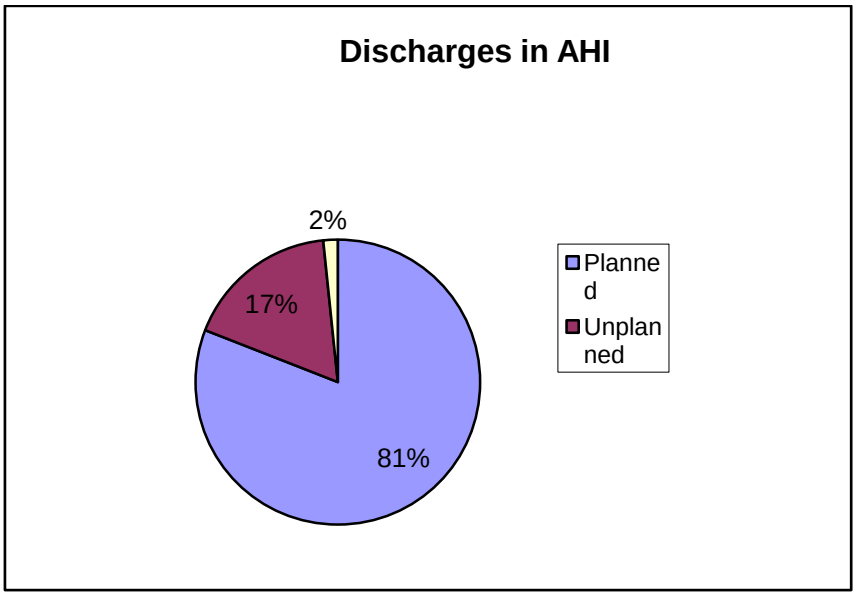
DATA ANALYSIS

The study was conducted to identify the possible reasons responsible for delay in discharge process. Target population chosen for the study is all the discharge patients of private wards of 4th floor and 5th floor. To conduct the study, a sample of 418 discharges including TPA discharges were selected from target population of 426 through non probability convenient sampling method.

Types of Discharges

In Asian Heart Institute there are following type of discharges

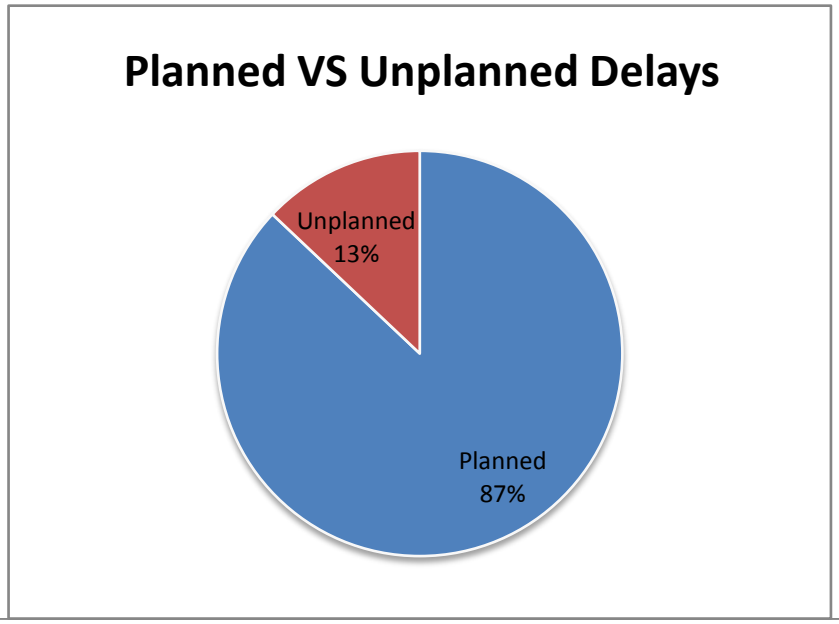
- Planned Discharges – Patient who are fit for discharge and are conveyed by doctor a day prior.
- Unplanned Discharges- Discharge is decide on the same day either after Doctor's round or after receiving reports.
- Discharge Against Medical Advice
- Death Discharges
- On account Discharges – Patient leaves the hospital premise before preparation of final bill by paying an amount higher than the expected bill.
- Day Care Discharges.

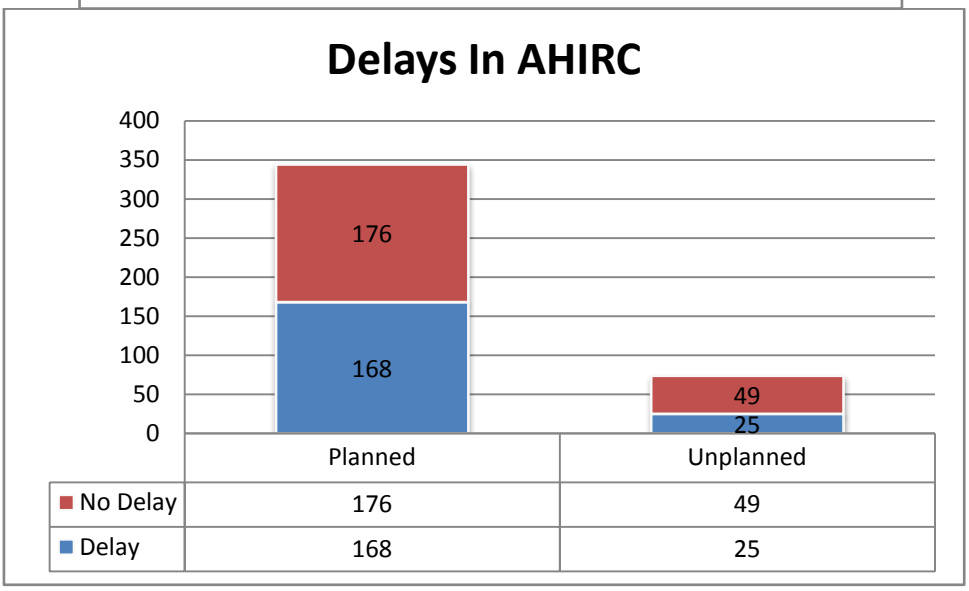


Out of the total number of discharges occurring in AHIRC most of the discharges are planned. Out of all 425 discharges 344 are planned, 74 are unplanned and 7 are DAMA cases.

Delay in Planned and Unplanned Discharges

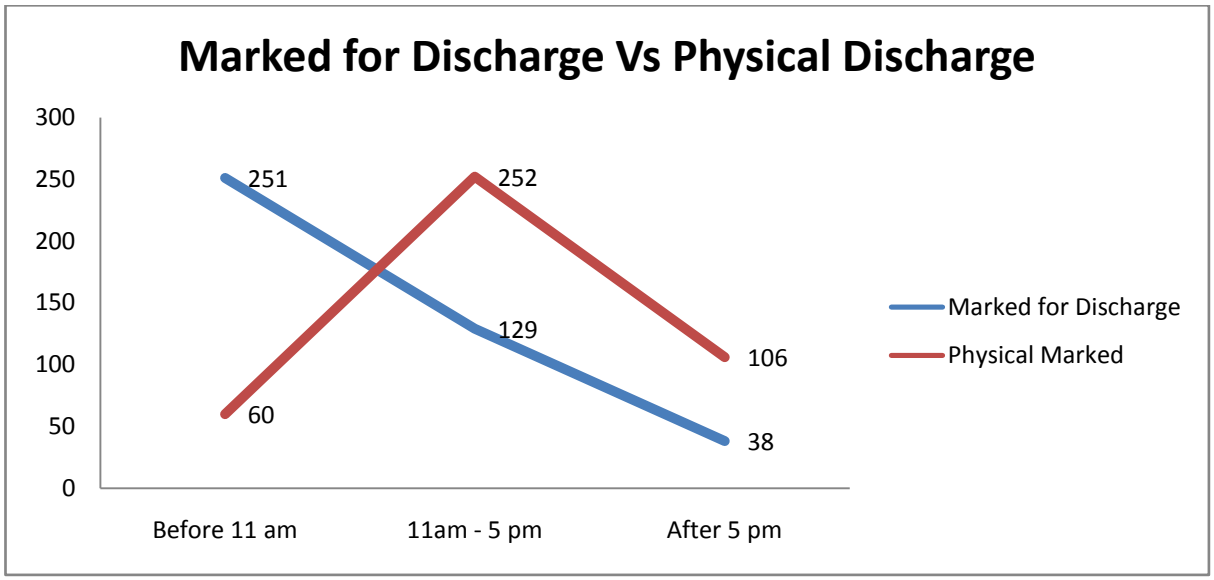
When comparison of delayed discharges was done between planned and unplanned discharges the results revealed were astonishing. It was found that among the planned discharges delay was almost equal to that of in time discharges where as in planned discharges the percentage of discharges occurring in time were high.





Difference in Marked for Discharge and Physical Discharge

Discharges marked after 11 am are charged with half day charges and after 5 pm were charged full day charges, but if discharges are marked before 11 am they are not charged any room rent, But cases have been seen when Marked for Discharges are marked before 11 am but Physically patient leaves room after long time, thus leading to block the room for long time period. The graph below show a high trend of marked for discharge before 11am but less physical discharges happening before 11 am leading to high revenue loss for the hospital.



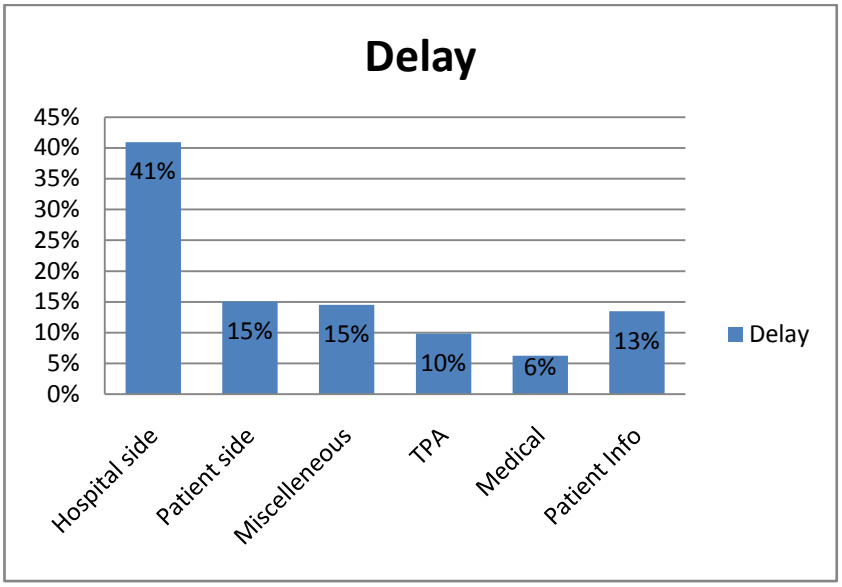
Reasons for delay-

While conducting the study, I came across the following possible reason for delay in discharge patients.

These are as follows:

- Delay in billing by billing department.
- Delay in clearing the pharmacy bill by pharmacy department
- Delay in approval from TPA
- Delay due to doctor's visit
- Delay due to Discharge Summary
- Delay due to cardiac Rehab Lectures
- Delay due to lack of information given to patient
- Delay due to clearance of bill by patient
- Delay due to some patient wanted to leave late or leave after having lunch or dinner.

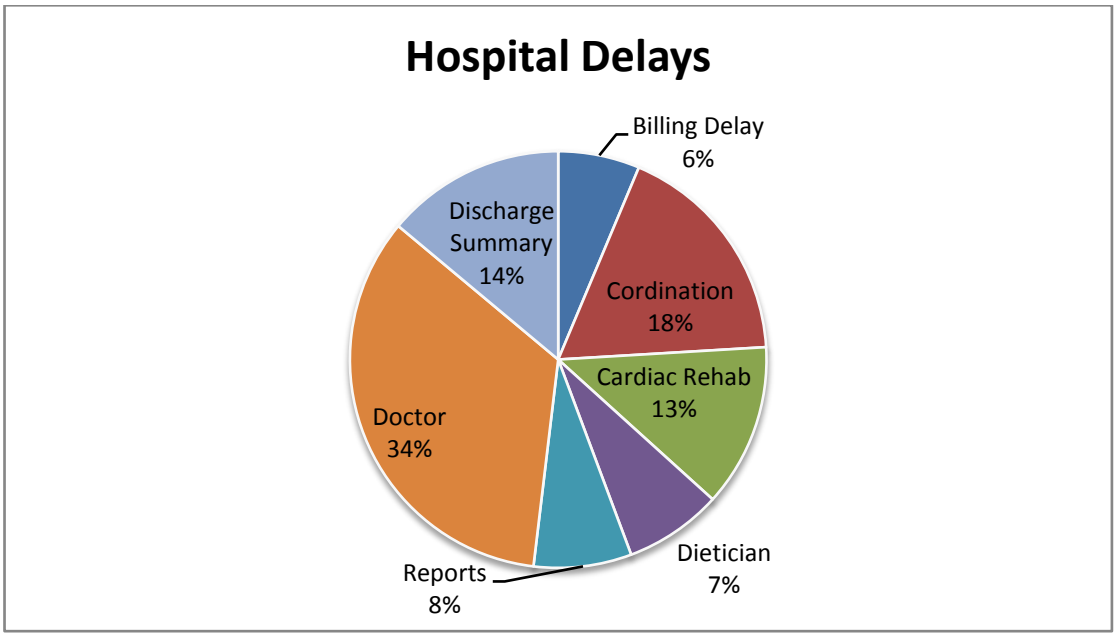
  Delay in discharges occur due to multiple factors contributing all together to hamper the discharge process. In order to achieve a smooth process it is very important to identify and rectify these reasons. First we broadly classify all the reasons.

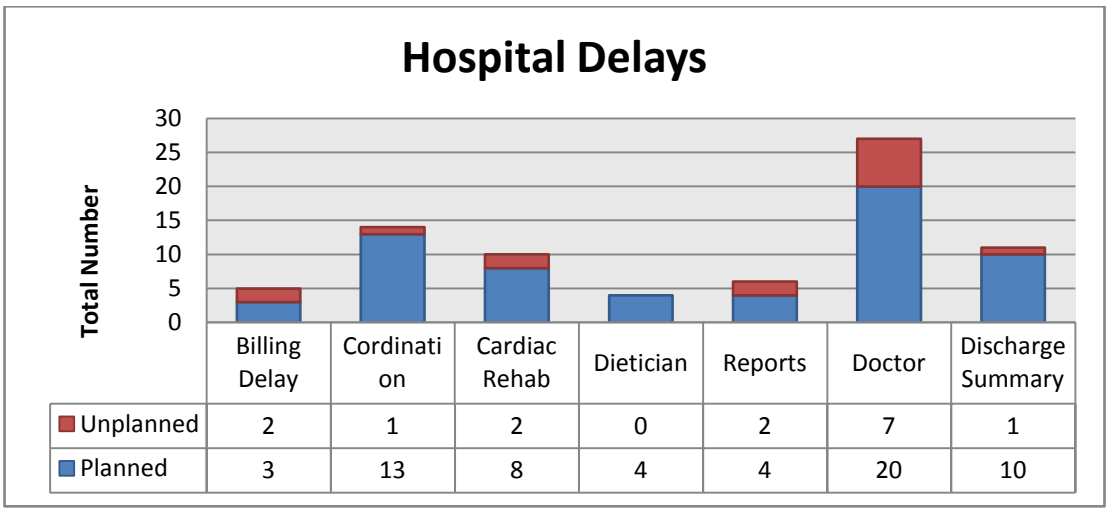


1) **Hospital Side Delays**

The delays occurring due to inefficiency within the hospital and this definitely had a scope of improvement.

- Billing Delays- Delay in making the final bill.
- Coordination- delay occurring due to lack of coordination among the departments and individuals
- Cardiac Rehab Lecture- Delay occur due to patient and relative go to attend the cardiac rehab lecture to rehab centre and then leave the room physically.
- Dietician- Before discharge it is the Dietician who gives the diet chart which is solely customized for the patient.
- Reports – the time taken to gather the patient reports.
- Doctors- Delay due to either the rounds or appointment with specific Doctors.
- Discharge Summary – delay due to incompleteness of discharge Summary.



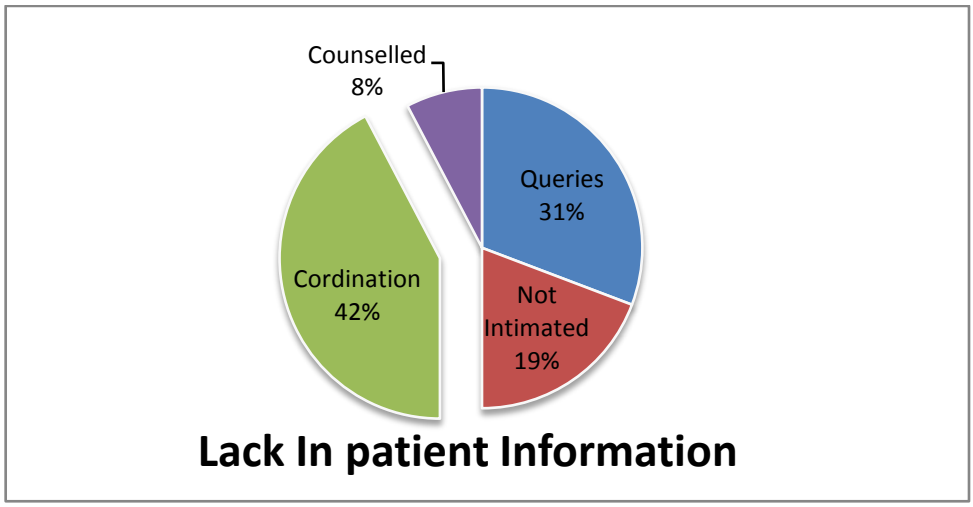


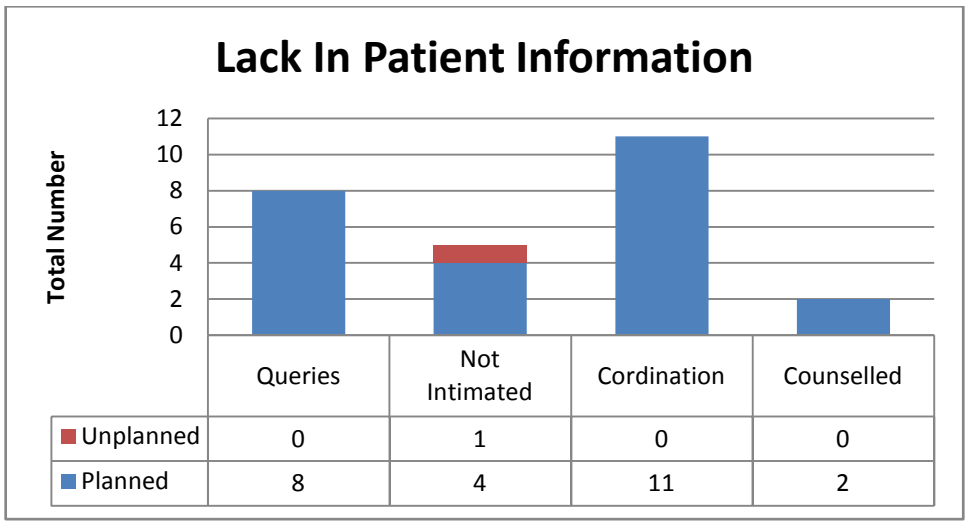
2) Delay due to Lack of Information to Patient (Flow of Communication)

As discharge process itself has many stakeholders, it is very important that the inflow of information should be proper and uniform. Delivering information to the patient and also receiving the required information from the patient/relative is very important.

This category of delay consists of the gaps occurring in provide the information to the patient and relative and also conceiving the same from them.

- Queries- Relative or patient had queries so they waited for the same.
- Medicines- Delay due to buying medicines for more time period.
- Not Intimated – Patient or relative may not know when or at what time patient will get discharged.
- Coordination- Prior information was not given to patient how much amount to be given or where and whom to give the paid copy of bill, Anything required by the patient e.g Medicine for one month or fit to fly certificate etc.

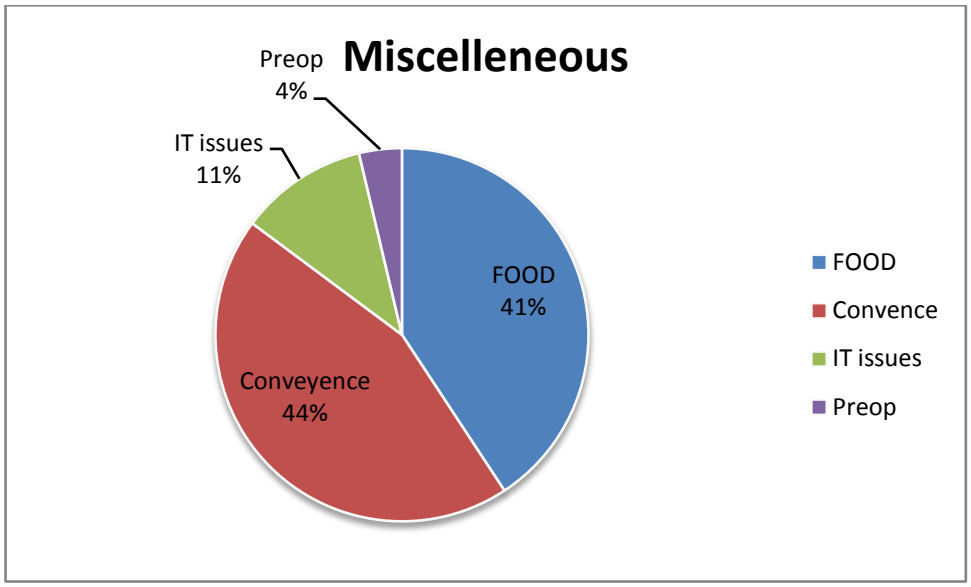


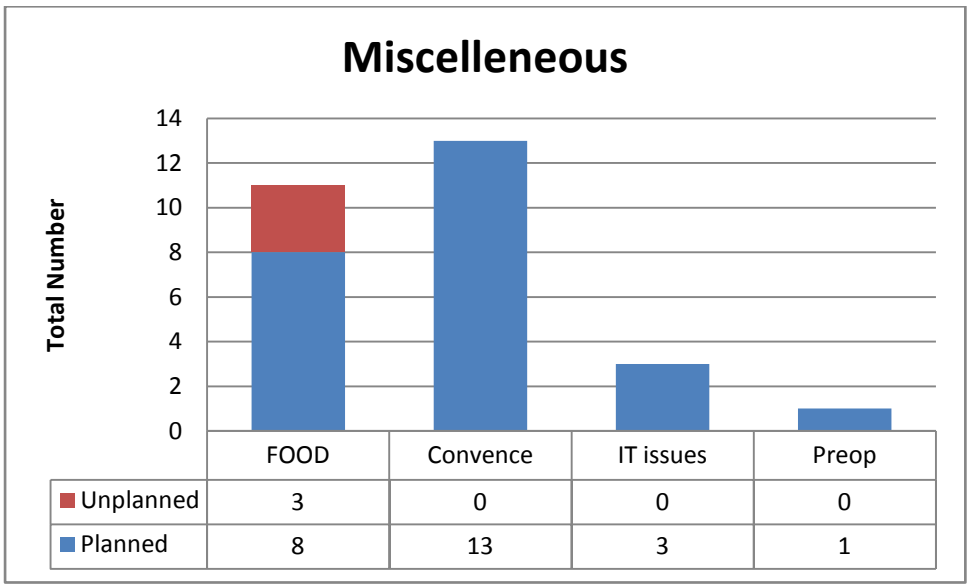


3) Miscellaneous Reasons

As Delay is multi-factorial some of the reasons are sometimes avoidable and some time cannot be avoided but a backup plan for these can somehow help to smooth the process.

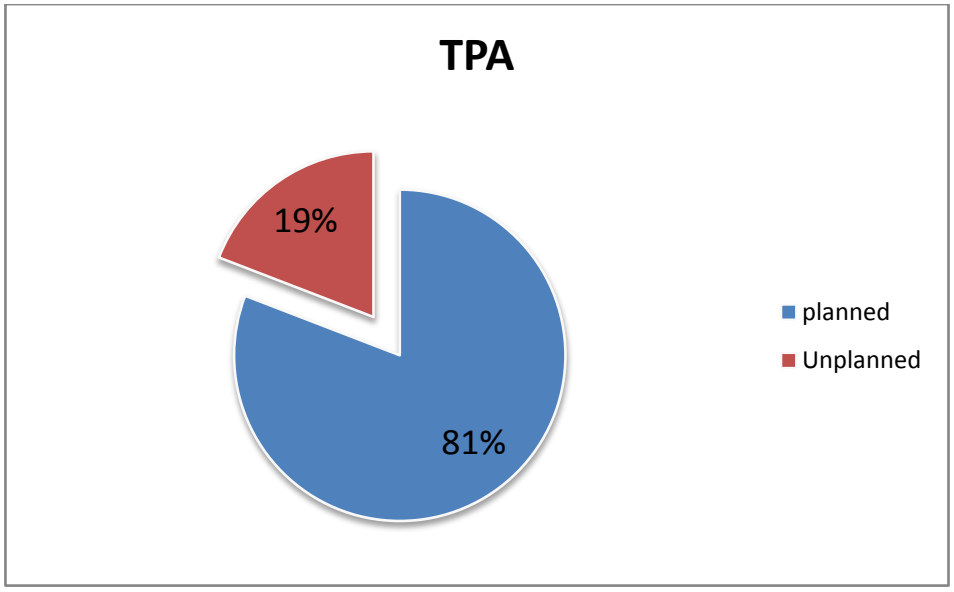
- IT issues- Delay due to system error or downtime.
- Pre – Op Investigation- Patient stay back due to pre –Op investigations.
- Food – Patient having lunch or dinner or Tea and Snacks Before going.
- Conveyance – patient waiting for vehicle or flight.

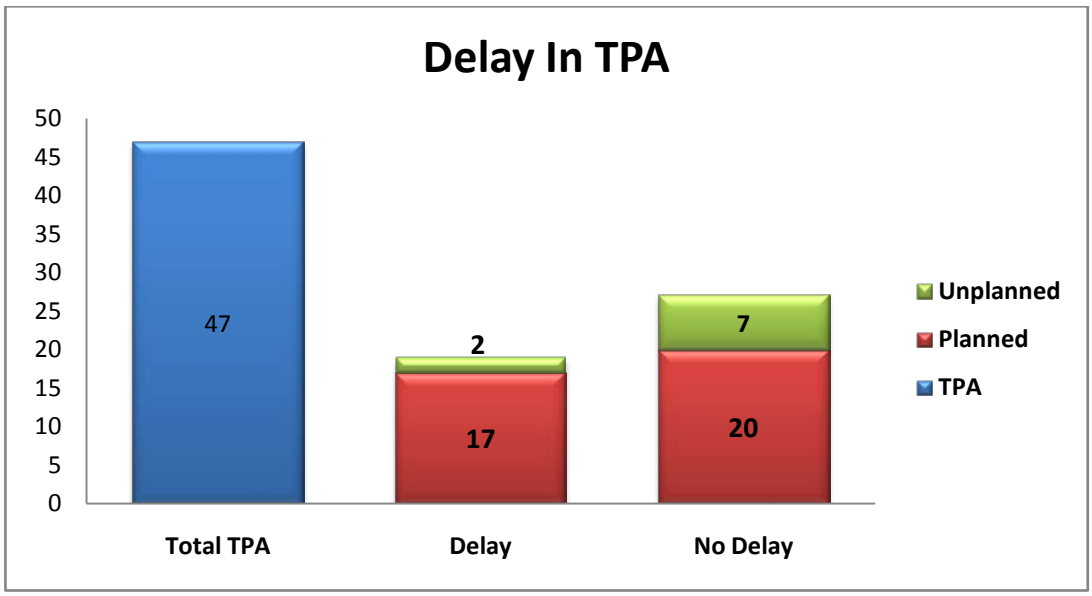




4) TPA Discharges.

Delay in discharges due to TPA is very commonly found in hospitals. Approval from TPA takes long time.




Delay In TPA
50
45
40
35
30
25
20
15
10
5
0
47
2
17
7
20
Total TPA
Delay
No Delay
Unplanned
Planned
TPA

Bottlenecks in Effective Discharges-

Late Doctors- Timing of Doctor's round has great impact on discharge process. Even for planned discharges it was found that patient waited for Doctor's round before leaving.

Appointment with Doctors- Before the discharge patient may have an appointment with Specific Surgeon or Consultant thus waiting for the same for long time delay the process.

Discharge Summary- Discharge Summary is prepared by RMO posted in the floor. When further investigation was done regarding the delay in completion of discharge summary it was found that Numbers of RMO/DNB were less in the floor.RMO ratio poses big problem as it is not only making of Discharge Summary but also explaining the same.

Cardiac Rehab Lecture- The lecture is schedule just before the discharge for about 45 min to 1 hr leading to blockage of room until patient return and empties the room.

Dietician Ratio- It was found that just one dietician per floor was allotted presently due to shortage of staff.

Gap in the flow of Information between staff and patient- Patient are usually not aware about the whole discharge process they do whatever they are asked to do, by chance if they miss out something that may lead to delay in the process. Less information about the time of discharge to the relative causing delay in arrangement of transport. Similarly, If relative doesn't convey their requirement in advance then there is delay in discharge process as arrangement of medicines and some corporate letters.

Medical issues- sudden test or patient kept for observation.

Reports- collection of reports from various department either due to unawareness of the reports to be collected or negligence by the nursing staff.

Financial Clearance- After Final bill preparation the Relatives were called for payment. Relative take their leisure time to clear off the outstanding or are busy arranging the money as they did not expected the amount in the bill. It was also noticed that even if relative pay off the amount well in time they may not give the paid copy of bill to nurse.

Patient not from Mumbai- It was also found that patient from outside Mumbai or international may pay off the bill but then wait for the flight or train.

Suggestion to Streamline the Discharge Process-

- **Effective discharge begins during admission.** At the time of the admission of the patient, the physician, based on the patient's condition and severity of disease, charts out a treatment plan and following that if a discharge plan is identified up front for each patient it shortens the discharge. This may include the type of room required by the patient, diagnostics test required by him, etc. the effective orchestration f these resources will have a direct positive impact and lead to a more efficient length of stay of the patient and these will be an overall increase in the patient satisfaction and hospital capacity management.

- If doctors can enter "**anticipated discharge"** orders at least 24 hr ahead of discharge. This way the process would be initiated earlier and thus finish easier. Giving discharge orders before 9am on the day of discharge would also be beneficial. A 100% customer delight is possible if such a protocol is followed.

- Doctors have a tendency to visit the more sick patient before the less sick, this a resulting in further delay in the discharge process of the potential patient lined up for discharge. (It is only natural for doctors to follow the regime). Switching the first round on the least sick patient is a gigantic culture change. It will take constant reminder about the importance of timey patient discharge, but will be more effective in overcoming the delays. Incentive/Reward can be given to Doctors who visit patient timely on respective rounds.

- Visual Improvement- Tentative planned date of discharge to be written on the white board at nursing station. Relative is counselled and convey about the same.

- Tools- A checklist should be used by Nurse and Relatives.(Annexure 2, 3)

- Patient care executive should ask patient or relative near the tentative date for any special requirement or any travel plans.

- While signing MOU with TPA, care should be taken to add a clause of early approval or adding half day charges or full day charges in advance.

- Discharge Lounge Arrangement- Patient who are fit enough and are either waiting for Doctor or conveyance, or other relative or some special requirement can be shifted to this lounge so that they will not cause any delay in actual discharge process.

Provisions for Discharge Lounge

  - Specially Trained lounge staff.
  - Drinking water
  - Audio Visual Health display and Magazines.
  - Associated Dinning area.

- All the staff should be trained to counsel the patient to move to lounge.

This will be great relevance especially for patient who come from far off areas. The cost of availing this facility will be lesser than the room tariff and the hospital resource of the relieved bed will be channelized for a new patient who requires it more.

- The discharge summary is typed from the day, the patient is admitted, is updated on daily basis and on the day of discharge, only minor additional information is added. The summary is to be checked and signed by consultant during his morning visit to the patient on the day of discharge.
- To speed up the billing process and to ensure quick turnaround of the final bills, all bills are updated every night to ensure minimum time taken on the day of discharge. The aim is to complete all the discharge before 11am every day, so that same bed can be used for other patients.
- **Enclosed billing counter-** It was observed that a constant disturbance exists at the billing counter, since a number of patients usually come so the billing counter for giving constant reminder for their bill updates, or enquires for personal nurses etc. Such a concept is already being followed in some hospital and can be scrutinized for further consideration.
- To improve the coordination with in the hospital provision should be added where in as soon as the marked for discharge is done, SMS is sent thought the system to Pharmacy in charge and patient care executive.
- Cardiac Rehab Lectures and dietician session can be scheduled a day prior in the evening before the tentative date if in case discharge not planned, even if patient doesn't gets discharged it will save time.

Conclusion-

An effective patient discharge requires proper coordination among all the departments and all stakeholders who are involved in discharge process. All steps of discharge process are linked to each other as chain, so if delay occurs in any single step then it cause delay in subsequent steps of patient discharge.

As discharge process starts from the doctor's round, so doctors round should be on time because any delay in doctors round affects the whole discharge process.

The study shows surprising remarks i.e. the length of planned discharges is more than the length of unplanned discharges. Reason of finding this is mostly due to delay occurring from hospital side and gaps in the inflow of information among the hospital staff and between the staff and relatives. Communication remains a big challenge for any process to be stream lined.

A fast discharge is directly related to patient satisfaction as it is patient last quality experience in the hospital so it should deal effectively and harmoniously so that patient can take good memories with him back home.

References-

1) Best practices in discharge planning aid customer service, market share *Hospitalist Leadership Connection*, July 11, 2007

2) Case study on Improving Inpatient Discharge Cycle Time and Patient Satisfaction at CRH: http://sbtionline.com/files/CRH-InPatientDischarge.pdf

3) Ben Sawyer (2012), A Patient Flow Logistics Coordination Model, Effective Discharge Begins at Admission.: http://sbtionline.com/files/CRH-InPatientDischarge.pdf

4) Collier EJ, Harrington C. Discharge planning, nursing home placement, and the internet. Outlook. 2005;53:95-103.

5) Lees, L., Delpino, R. (2007) Facilitating an effective discharge from hospital. Nursing Times; 103: 29, 30–31.

6) Jewell, S. E. (1993), Discovery of the discharge process: a study of patient discharge from a care unit for elderly people. Journal of Advanced Nursing, 18: 1288–1296. doi: 10.1046/j.1365-2648.1993.18081288.

7) Christopher G. Maloney, Douglas Wolfe, Per H. Gesteland, Joe W. Hales, Flory L. Nkoy AMIA Annu Symp Proc. 2007; 2007: 493–497.

8) Wedgwood, Ian. Lean Sigma: A Practitioner's Guide.Prentice-Hall: Upper Saddle River, NJ,2006.

9) Zinkgraf, Stephen. Six Sigma: The First 90 Days. Prentice-Hall: Upper Saddle River,NJ,2006.

10) Jack BW, Chetty VK, Anthony D, Greenwald JL, Sanchez GM, Johnson AE, et al. A Reengineered Hospital Discharge Program to Decrease Rehospitalization: A Randomized Trial. Ann Intern Med. 2009;150:178-187

11) Pearson, P., Procter, S., Wilcockson, J. and Allgar, V. (2004), The process of hospital discharge for medical patients: a model. Journal of Advanced Nursing, 46: 496–505.

12) Wilson, S., Ruscoe, W., Chapman, M. and Miller, R. (2001), General practitioner–hospital communications: A review of discharge summaries. Journal of Quality in Clinical Practice, 21: 104–108. doi: 10.1046/j.1440-1762.2001.00430.

Annexure

1) Annexure 1- Data Collection Template
2) Annexure 2 – Nursing Checklist.
3) Nursing 3- Patient Relative Check list

Annexure 1 Data Collection Template

ASIAN HEART INSTITUTE **Discharge tracking**

Patient name	AH No.	Planned /Unplanned	Procedure	Marked for Discharge	Clinical discharge	Bill Ready	Financial Discharge	Physical Discharge	Total time taken	Reason for delay

Annexure 2 Nursing Checklist

Nursing Activity	Discharge day 2	Discharge Day 1	Day of Discharge
Update planned date of discharge after consultation with doctor.			
Radiology Reports			
Echo Reports			
Lab Reports			
Other Diagnostic Report Like Angiography CD			
Dietician Counselling			
Cardiac rehab Session			
Pharmacy Return			
Any Special request from Patient side			
Inform to other department			
Arrangement of wheel chair and transport for patient.			
Update in HIS as soon as patient bed is vacated.			

Annexure 3 Checklist used by Relative

Relative Activity	Discharge Day 1	Day of Discharge
Expected Time Of Discharge		
Dietician Counselling		
Cardiac rehab Session		
Pharmacy Return		
Any special Pharmacy purchase		
Any Certificate required		
Arrangement transport for patient.		
Any queries to be solved		
Paid copy Given to nursing		
Collection of all reports		