Cover Page

TO STUDY THE PROCESS OF DISCHARGE IN IN-PATIENT DEPARTMENT IN BABYLON HOSPITAL, JAIPUR

Dissertation

Submitted to

The IIHMR University, Jaipur

for the partial fulfillment for the award of the

degree ofMaster of Business Administration

(MBA)

in

Hospital and Health Management

by

Dr. Sapna Patel

Under the Supervision and Guidance of

Dr. Pallavi Choudhary Agarwalla

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DECLARATION BY STUDENT

I hereby declare that this dissertation titled "To study the process of discharge in in-patient department in Babylon hospital, Jaipur" is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished workof others has been duly acknowledged in the text.

(Signature)

Name of Student -

Dr. Sapna Patel

Date- 02/07/2021

Babylon

(A Unit of Babylon Hospital Pvt. Ltd.)

CHILDREN'S HOSPITAL & PERINATAL CENTRE

(ICMCH RECOGNISED CHILD HEALTH TRAINING INSTITUTE)

NNF Accreditated NICU

CERTIFICATE

This is to certify that Dr. Sapna Patel in partial fulfilment of the requirements for the award of the degree of MBA Hospital and Health Management from the IIHMR University, Jaipur has successfully completed her internship at Babylon Hospital, Adarsh Nagar, Jaipur during March 22, 2021 to June 19, 2021.

Place: Jaipur

Date: 25/06/2021

Head of the Organization

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Certificate from Faculty Guide and School Dean

CERTIFICATE

This is to certify that dissertation titled "To study the process of discharge in in-patient department in Babylon hospital, Jaipur" is a record of the research work undertaken by Dr. Sapna Patel in partial fulfillment of the requirements for the awardof the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and his/her approach to the research study has been sincere, scientific, and analytical.

Faculty Guide
Dr. Pallavi Choudhary Agarwalla
IIHMR University, Jaipur
Date-

School Dean
Dr. Dhirendra Kumar
IIHMR University, Jaipur
Date-

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ABSTRACT

The procedure of releasing patients from the hospital is complicated and loaded with difficulties. Discharge planning is the process of creating a customized discharge plan for a patient before they leave the hospital in order to guarantee that they are discharged on time and with proper post-discharge care. The current study looked at 129 patients who were hospitalized to a single specialty hospital in Jaipur to see how the discharge process worked. Discharge notification time, billing card submission time, medications clearance time, pharmacy clearing time, final bill notification time, were recorded to study actual time taken at each step from discharge order to the physical room vacancy by the patient. The present study results revealed that the total time taken to prepare discharge summary for maximum no of patient i.e. 59 patients was 0.5-1 hours, the total time taken for unused medicines to be returned and to get pharmacy clearance after discharge summary is made for maximum no of patient i.e. for 78 patients was 0-15 minutes, the total time taken by the billing department to prepare the total bill of the patient for maximum no of patient i.e 52 patients was 0-30 min, total time taken by a patient to leave bed after thedischarge being ordered by the consultant for maximum no of patient i.e. for 42 patients was 2-3 hours, for 39 patients was 3-4 hours. Necessary steps to be taken to improve the process are discharge summary of planned patients must be prepared a day before night. A ward-based coordinator must be in place to coordinate and monitor discharge to reduce extra time taken in the procedure. Advance information, daily updating bills, upgrading IT, daily Payment all these steps can help in improvement of discharge process.

Keywords-- Discharge planning, discharge process, discharge order, discharge intimation, turnaround time.

INTRODUCTION

A) ABOUT THE HOSPITAL

Babylon Hospital is a Super Specialty Institute of Mother and Child Health caring Women and Children (aged 0 – 18 years). Babylon Hospital was established 15 years ago with an aspiration to provide specialized & comprehensive women, neonate & child health care. Babylon Hospital has emerged as the leading, most reputated & trusted children hospital in the Rajasthan state. It has established a reputation as the fastest growing super specialty hospital for mother & child. It is situated in the heart of the city, close to the commercial hub Raja Park.

The Hospital is known for its critical care of new-born & older children. It serves not only to effluent class but also the poor & under-privileged people of the society. In view of its distinctive status, it has one of the largest and well-equipped Women Health Care and Advanced Neonatal & Pediatric Intensive Care Unit. Babylon Hospital's popularity known as its ethical, evidence based, guideline oriented Pediatric and Neonatal Care by a team of highly skilled, sensible pediatricians, Neonatologists, subspecialists & specially trained Nursing staffs in a very positive environment. It has outstanding recognition & awards.

It is also a model hospital for specialized doctors practicing in group. Over the period, this hospital has admitted large number of children for intensive care with ventilation facilities for the critical babies. Premature baby of 26 weeks gestation weighed only 447 gms survived with good neurological outcome which reflects the level of care in this special unit for the new born.

This was achieved owing to hospital's highly qualified professionals, trained medical staff & the parents of babies who placed their faith in services of hospital. Now Babylon Hospital has become a landmark for specialized mother and child health care center.It is running a highly reputed post graduate (post MD, DCH, DNB) Neonatal fellowship programme in neonatology under National Neonatology Forum (NNF), INDIA.

SERVICES OF BABYLON HOSPITAL

OBSTETRIC & GYNAECOLOGICAL FACILITIES

- Facilities are available for Mother and Women Health Care as Followings:
- Antenatal & High-Risk Pregnancy Clinic.
- Child Birth-Normal, Assisted, Cesarean Section.
- Genetic & Fetal Medicine
- Menopause Clinic
- Female Adolescent Clinic

NEONATAL INTENSIVE CARE

- Rajasthan State's First National Neonatology Forum Accredited (NNF) Advanced NICU for extreme premature & critically ill new borns, those who require surfactant & ventilatory support and exchange transfusion for neonatal jaundice.
- Unit is equipped with siemens-300 SLE-5000 Plus High Frequency Neonatal Ventilators; Servo Controlled Radiant Heat Warmers, CFL phototherapy units, CPAP, Infusion Pumps, Multipara System, Pulse Oximeter.
- NICU team includes nurses trained in neonatal-care, a group of Neonatologists, Pediatricians with special training to work with new-born and Therapeutic Early Interventionist, Retina Specialist, Audiologist are always available 24 hrs for caring critical newborns.

PEDIATRIC INTENSIVE CARE UNIT

- Babylon Hospital has Fully Air Conditioned 08 Bedded State-Of-Art Pediatric Intensive Care Unit.
- It has modern equipment as Invasive & Noninvasive Ventilators, Multipara Monitors, Pediatric Defibrillator, Invasive & Noninvasive Homodynamic Monitoring & Pharmacologic Cardiac Support to handle all type Pediatric Emergencies related to Respiratory, Cardiac, Metabolic & Neurologic Disorders.

SURGICAL UNITS

- GYNECOLOGY & CHILD BIRTH
- NEONATAL SURGERY
- PEDIATRIC SURGERY

CHILD DEVELOPMENT AND SUPPORT CENTRE

- Integrated solution to varied problem of children and adolescent by a team of interdisciplinary health care professional for children with special needs: -
- Children with problems in newborn period preterm.
- Low birth weight, infection etc.
- Physical and Mental growth retardation.
- Birth Defects (Congenital anomalies)
- Diseases of Muscles and bones/cerebral palsy.
- Hearing Impairment/poor vision
- Seizures/Headaches/Migraine/Vertigo
- Learning/Memory problems
- Hyper activity/ Mental retardation/autism
- Inappropriate Behavior- Behavioral issues.
- Poor academic performance.
- School refusal
- Mental Problems- Depression / Anxiety

SPECIALITIES AT BABYLON HOSPITAL

1. **Neonatal care**
2. **Child and Adolescent Care**

- Pediatric Intensive Care
- Neonatal & Pediatric Surgery
- Pediatric Orthopedic
- Pediatric Dermatological & Allergy
- Pediatric Pulmonology & Asthma
- Pediatric Dentistry
- Pediatric Nutrition & Dietetic Care
- Adolescent Clinic
- Pediatric Development
- Pediatric Genetics
- Pediatric Audiology & Speech Therapy
- ABA Specialty
- Pediatric counselling
- Pediatric Radiology &ECHO
- Pediatric Pathology
- Pediatric Anesthesiology
- Child birth & Gynecology
- Fetal Care
- Gynecologic Laparoscopic Surgery
- Gynecologic Radiology & Pathology
- IVF
- Emergency

B) DISCHARGE PROCESS

Discharge from the hospital occurs when a patient is released from the hospital and either returns home or is transferred to another facility, such as a rehabilitation centre or a nursing home. Discharge instructions are the medical instructions that the patient will require in order to properly recover.

Discharge planning is a common practice in many countries' health-care systems. The goal of discharge planning is to shorten hospital stays and prevent unplanned readmissions, as well as to improve service coordination after discharge. Patients and professionals may be happier with their healthcare if discharge planning is implemented.

Discharge from the hospital is a process, not a one-time occurrence. It should include the creation and implementation of a strategy to make the transfer of an individual from the hospital to a suitable setting as simple as possible. Individuals and their caregivers should be consulted at all phases of the process, and the care plan should be reviewed and updated on a regular basis to keep everyone up to date.

For scheduled admissions, planning for hospital discharge should begin before to admission, and for all other admissions, it should begin as soon as practicable. This entails building on or supplementing any assessments completed before to admission.

The following are the main concepts for effective discharge and transfer of care:

- Through a whole-system approach to assessment processes, commissioning, and service delivery, unnecessary admissions are prevented, and effective discharge is promoted.
- Discharge is a process, not a one-time event, and it necessitates the active participation of people with disabilities and their caregivers as equal partners in the delivery of care and the planning of a successful discharge.
- To handle all parts of the discharge process, staff should operate within an integrated multidisciplinary and multi-agency team.

- Transitional and intermediate care services are utilized effectively, allowing existing acute hospital capacity to be utilized appropriately and patients to attain their desired outcomes.

The following are some of the advantages of excellent discharge planning:

For the patient

- Needs are satisfied
- Able to maximise self-sufficiency.
- Feel like you're a member of the care team, an engaged participant who isn't being taken advantage of.
- There will be no inconsistencies or duplication of work.
- Become familiar with the care plan and sign up for it.
- View care as a logical progression rather than a collection of disconnected actions.
- Believe that they have been supported and that they have made the best choices for their future.

For the carer(s)

- Consider their information to have been used correctly, and they feel valued as partners in the discharge process.
- Understand their right to have their needs assessed and satisfied.
- Have access to the necessary information and advice to assist them in their position as a caregiver.
- Are offered the option of taking on a caring role.

For the staff

- Have the impression that their expertise is valued and put to good use.
- Get important information as soon as possible.
- Recognize their role in the system.
- Has the ability to learn new skills and take on new responsibilities.
- Have the opportunity to work in a variety of places and ways.

For organization.

- Resources for the best possible use.
- The local community values the service;
- Employees feel valued, which contributes to better recruitment and retention.

Thus, the present study had been planned to observe and analyze the discharge process flow of inpatients in BABYLON HOSPITAL, JAIPUR.

C) DISCHARGE PROCESS FLOW

ADMISSION

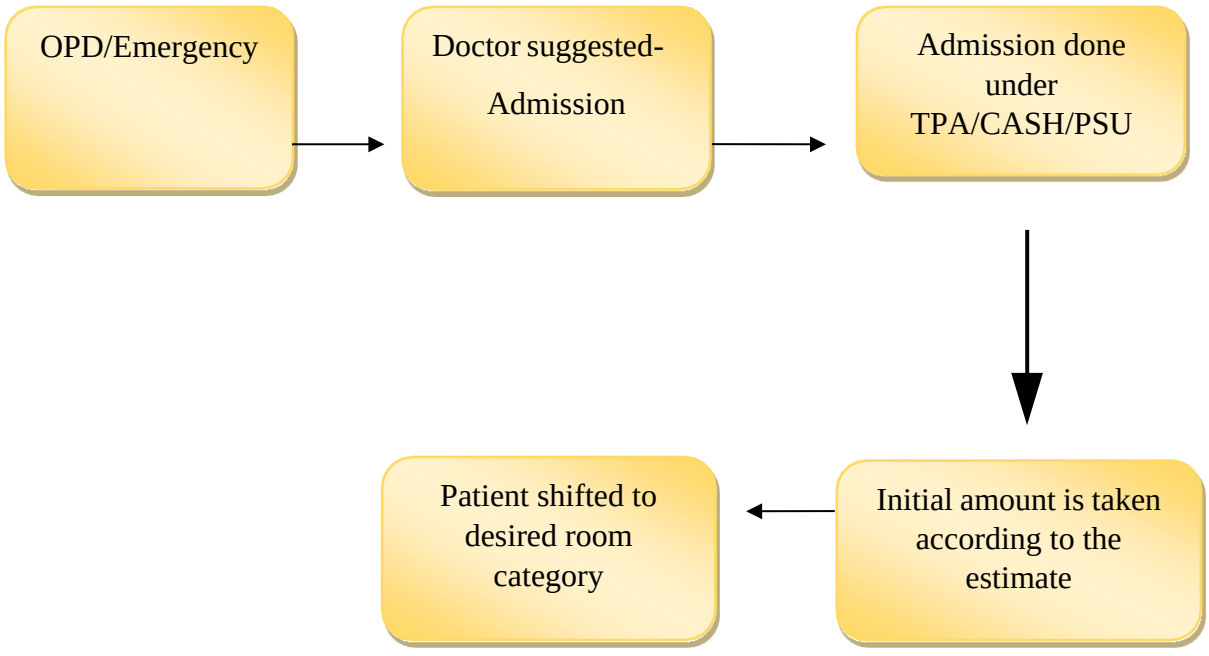
- Patient comes for admission in ward after consulting by doctor in Emergency/OPD
- Front office staff ask for desired room category (hospital have single, twin, deluxe, etc..) where the patient wants to stay.
- After the patient has selected the room category financial counseling is done, front office staffs make the estimate amount of treatment and confirm from the patient whether they want to get admit or not.
- After the confirmation the admissions are done under three categories:

A) Cash

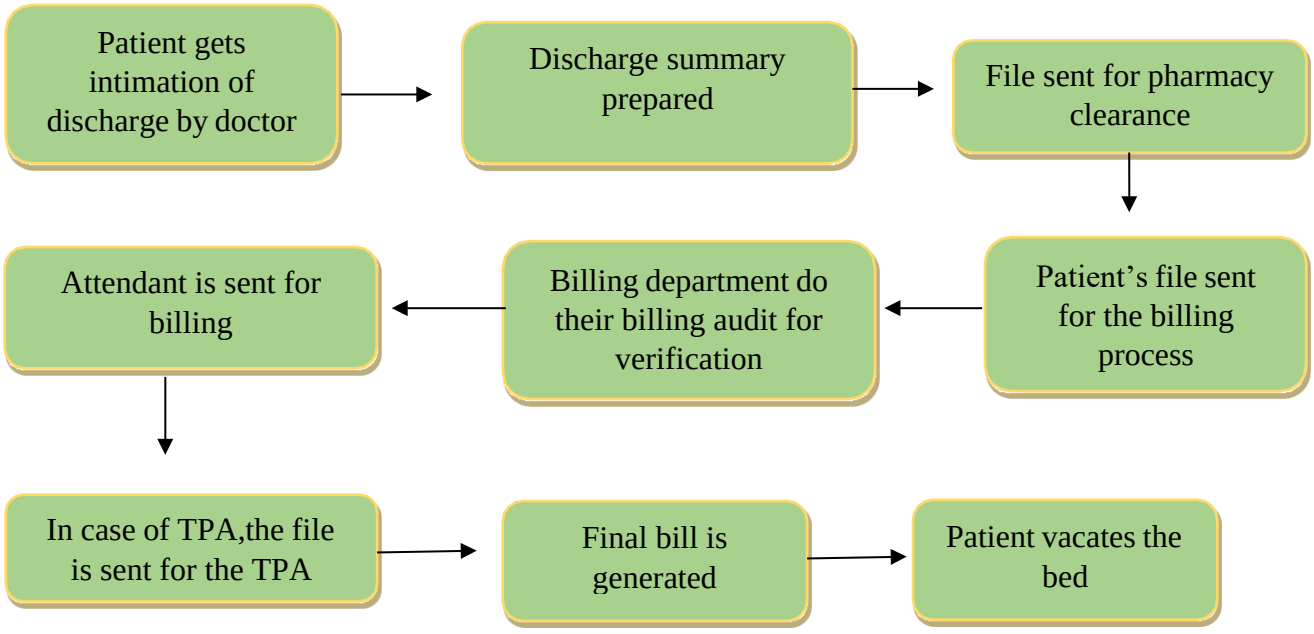
B) CGHS

C) TPA

- The patient will deposit initial amount for further admission process.
- The patient is then shifted to Ward/OT/ICU for further treatment.



BILLING AND DISCHARGING PROCESS



REVIEW OF LITERATURE

S.NO.	TITLE	AUTHOR	YEAR	FINDINGS
1.	Predictive Modelling for Turn Around Time (TAT) of Discharge Process for Insured Patients in a Corporate Hospital of Pune City	Kasturi Shukla, Shrishti Upadhyay	February 15, 2018	To investigate the predictors of discharge delays. Discharge delays for insured patients, according to this study, are a typical occurrence. In addition, hospital delays must be minimized through timely submission of discharge summaries and mandatory reports, as well as prompt responses to produced enquiries.
2.	Turn Around Time - TAT for Discharge Process	Human Konnect	April 7, 2017	In this article, explained about discharge process, satisfactory/Unsatisfactory experience, major bottlenecks in the discharge process are identified. The major bottlenecks in the discharge process are identified as below: Delay in start of discharge process. The completion of the discharge card has been delayed. Delay in finishing the final case file. There was a delay in preparing the final bill. Financial approval is taking longer than expected.

3.	An analysis of the average waiting time during the patient discharge process at Kashani Hospital in Esfahan, Iran: a case study	Sima Ajami, Saedeh Ketabi	2004	According to the statistics, patients took an average of 4.93 hours to complete the discharge process. According to the medical professionals involved, the most important elements affecting normal waiting times are patients' financial worries and the distance between different wards. The longest stay in the Neurology ward was 5.7 days. According to the findings, there was a line to fill out medical records at the nursing and medical equipment stations.
4.	A Study on Discharge Process of Discharged Patients of a Multispecialty Hospital Ludhiana	Harmanjot Kaur , Roopjot Kochar	2017	The present study results revealed that maximum turnaround time of 9:07 hours was consumed between discharge intimation to handover to patient and on an average 5:07 hours time has been taken between discharge intimation to room preparation for the next patient. Minimum turnaround time of 18 minutes has been recorded for updation of billing card on floor and its receipt at IP billing. Between the moment the patient is informed of his or her discharge and the time the room is available, an average turnaround time of 4:05 hours has been observed.

RESEARCH GAP

- TPA/Insurance approval delay & Transaction Delay because of attendant's unavailability.
- Slow Process at reception**,** under motivated staff & less coordination amongst staff, misinformation to attendants.

OBJECTIVES

- To investigate the discharge procedure at Babylon Hospital in Adarsh Nagar, Jaipur. Specific- To determine the cause of delays in patients being discharged from the inpatient department and devise measures to reduce these delays.

- To identify bottlenecks and investigate impediments and delays in the discharge process.

- To reduce the long time, it takes for a patient to be discharged and provide recommendations based on the study's findings.

METHODOLOGY

- **Location:** Study of Inpatient department of Babylon Hospital, Adarsh Nagar, Jaipur.
- **Study design:** Exploratory; Mix of Qualitative and Quantitative
- **Sample size:** 129 cash patients.
- **Sample technique:** Conveniance Sampling
- **Data collection technique:** Primary & Secondary Data
- **Data collection Tool:** Statistical tool- MS Excel, Checklist (Patient discharge checklist) and Discharge files
- **Data collection Technique:** Observation

The current study involved 129 released patients from several wards at a single specialty hospital in Jaipur, with the goal of determining the discharge process timings. Various timings were recorded for each patient, including discharge notification time, billing card submission time, pharmacy clearance time, final bill notification time, final bill clearance time, final summary time, and room vacancy time, in order to study the actual time taken at each step from discharge order to physical room vacancy.

Data collection involved discussion with the administrative staffs on the managerial issues,communicating with the other staff and going through the records.

Primary	Secondary
By interacting with the executives, doctors, nursing staff and other relevant employees ofthe hospital.	Through registered records, HMIS ofthe hospital
Through direct observations.	Literature available about the hospital like magazines, pamphlets, brochures, written documents.

ANALYSIS

1.

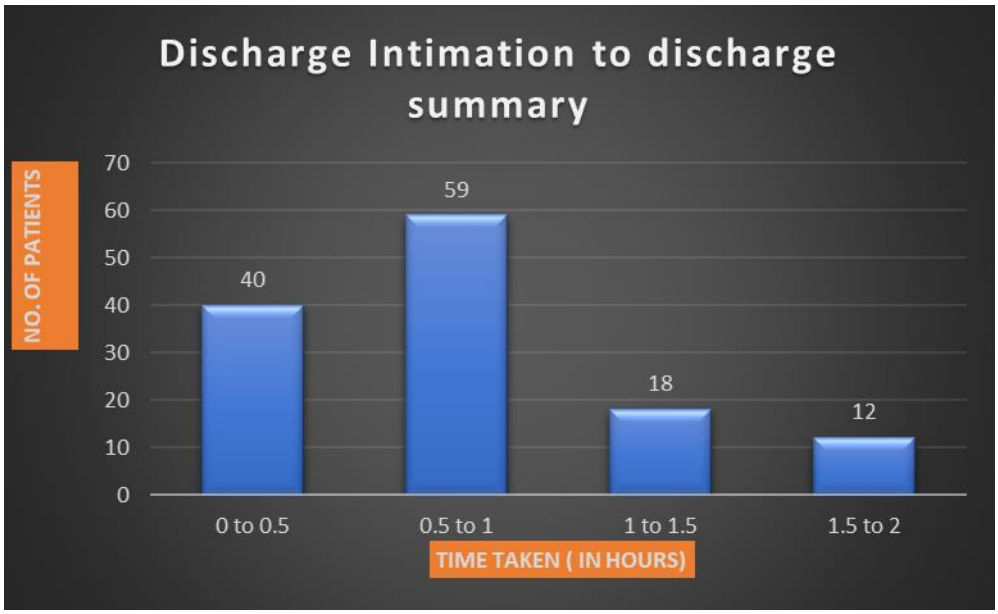


Figure1: Total time taken for a discharge summary to be prepared

Figure 1 basically shows the total time taken to prepare a discharge summary of a patient after discharge being ordered by the consultant. It is observed that the total time taken to prepare discharge summary for maximum no of patient i.e. 59 patients was 0.5-1 hours, for 40 patients was 0-0.5 hours, for 18 patients was 1-1.5 hours followed by 1-1.5 hours for 12 patients.

2.

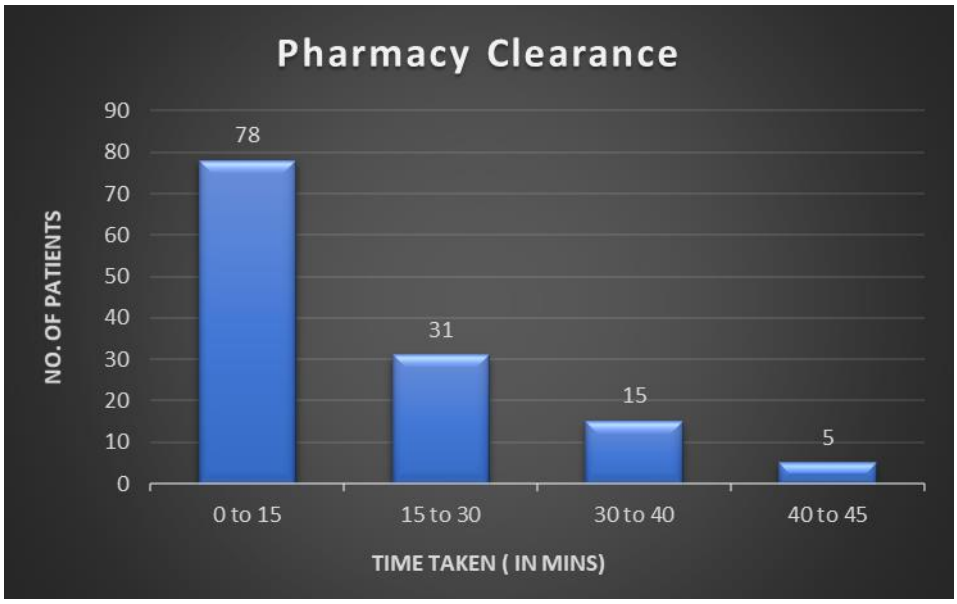


Figure: 2- Total time taken for pharmacy clearance

Figure 2 basically shows the total time taken for unused medicines to be returned and to get pharmacy clearance after discharge summary is made.

It is observed that the total time taken for pharmacy clearance for maximum no of patient i.e. for 78 patients was 0-15 minutes, for 31 patients was 15-30 minutes, for 15 patients was 30-40 mins followed by 40-45 minutes for 5 patients.

3.

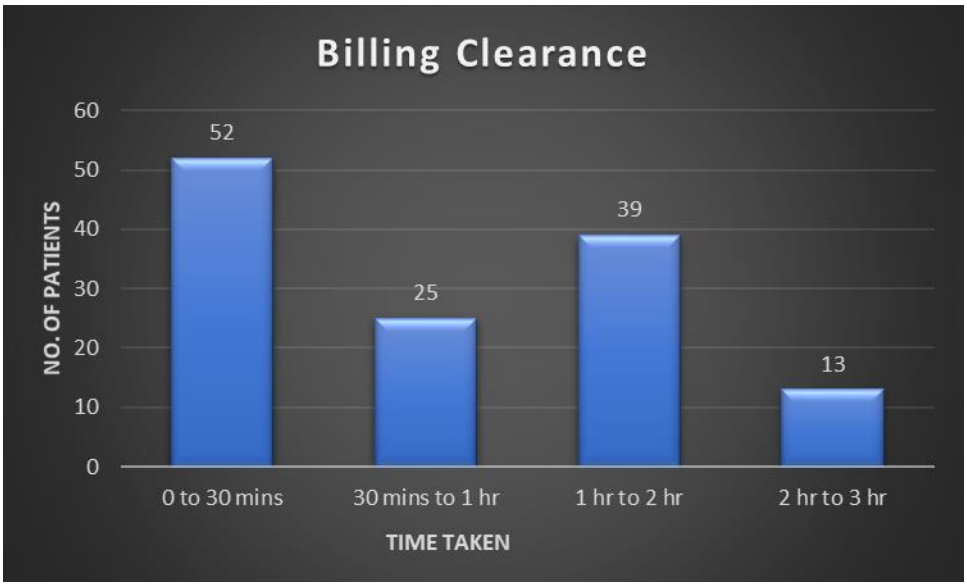


Figure: 3- Total time taken for billing clearance

Figure 3 basically shows the total time taken by the billing department to prepare the total billof the patient.

It is observed that the total time taken for billing clearance for maximum no of patient i.e 52 patients was 0-30 mins, for 39 patients was 1-2 hour, and for 25 patients was 30 mins to 1 hour, followed by 2-3 hours for 13 patients.

4.

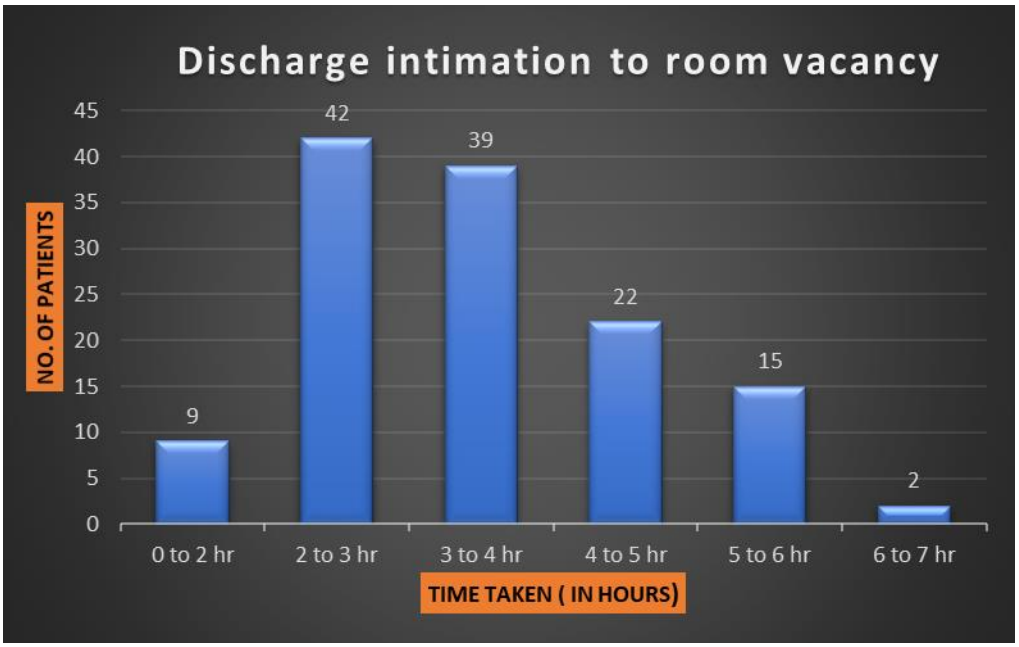


Figure: 4- Total time taken during discharge intimation to room vacancy

Figure 4 basically shows the total time taken by a patient to leave bed after thedischarge being ordered by the consultant.

It is observed that the total time taken to leave bed after the discharge being ordered by theconsultant for maximum no of patient i.e. for 42 patients was 2-3 hours, for 39 patients was 3-4 hours, for 22 patients was 4-5 hours and for 15 patients was 5-6 hours, for 9 patients was 0-2 hours and least 6-7 hours for 2 patients.

FINDINGS AND DISCUSSION

S. No	Particulars	Average time (in hours)
1.	TAT-1: Discharge intimation to room vacancy	3:55
2.	TAT-2: Discharge summary	0:53
3.	TAT-3: Pharmacy clearance	0:16
4.	TAT-4: Billing clearance	1:14

Table No. 1

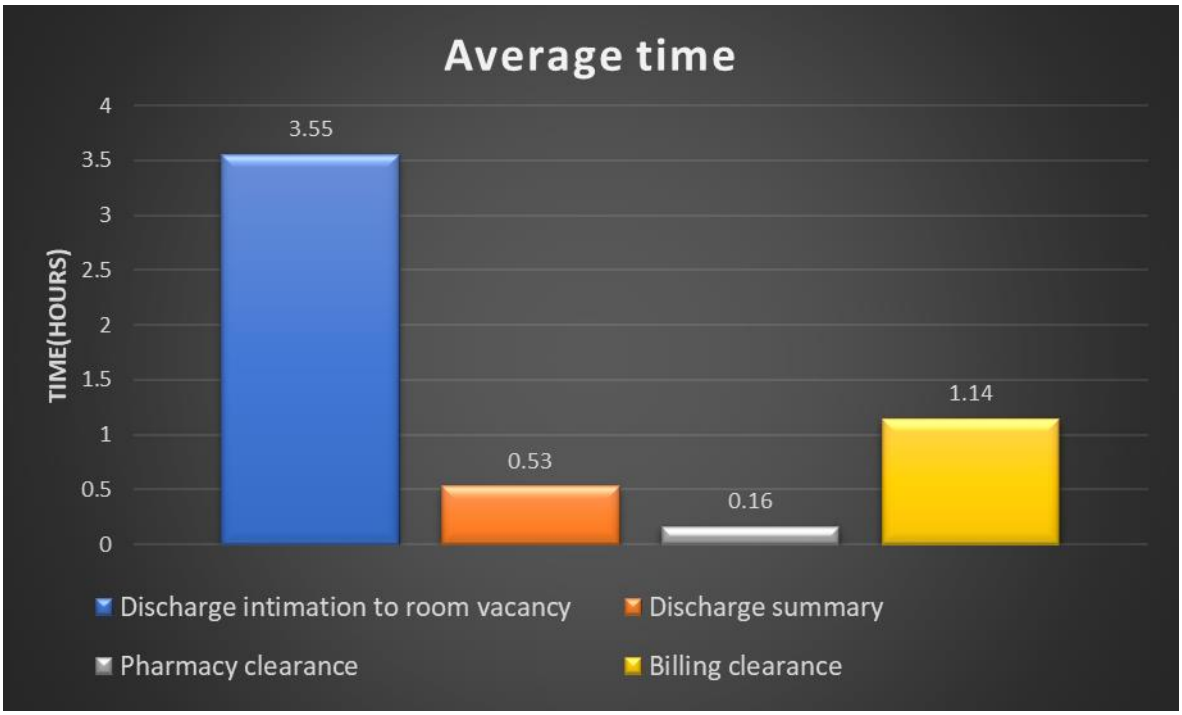


Figure:5- Average time taken in different processes of discharge

Figure 5 basically shows the average time taken in different processesof discharge.
It is observed that the average time taken in the entire process of discharge i.e. the time whenconsultant ordered till the time the patient left the bed was 3 hours 55 minutes which is morethan the standard time recommended by NABH i.e. 180 minutes.
It was observed that the average time taken in preparing discharge summary is 53 minuteswhile for pharmacy clearance was 16 minutes. Moreover, the average time taken in billingclearance was 1 hour 14 minutes.

Reason behind this was that the patient's attendees were late, delay due to physician reference and other tests, due to longer time in pharmacy clearance, due to delay in discharge summary, sometimes some of the reports were missing in file, due to dressing delay, sometimes bills were not updated regularly and machines were not working properly. And sometimes coordination between staff were absent.

CONCLUSION

The present study results showed that the average TAT-1 i.e. the time when consultant ordered till the time the patient left the bed was 3 hours 55 minutes which is more than the standard time recommended by NABH i.e. 180 minutes.

It was observed that the average TAT-2 i.e. time taken in preparing discharge summary is 53 minutes while average TAT-3 i.e. time taken in pharmacy clearance was 16 minutes. Moreover, the average TAT-4 i.e. time taken in billingclearance was 1 hour 14 minutes.

SUGGESTIONS AND RECOMMENDATIONS

Patient discharge is a complicated process that necessitates the collaboration and coordination of all hospital departments and personnel. It is difficult to discharge a patient in a timely manner.

The NABH has set a time limit of 180 minutes for the full discharge process.

Appropriate criteria for personnel involved in the discharge process should be in place, and they should be consistent throughout the hospital.

Other measures that must be taken include:

1. **Advance information:** Physicians should provide advance notice of intended discharges so that nursing staff can arrange properly.
2. A day before night, a discharge report of scheduled patients must be produced.
3. The discharge summary is typed from the day the patient is admitted to the hospital, is updated daily, and only little extra information is added on the day of discharge.
4. **Daily updating bills:** - To expedite the billing process and ensure a quick turnaround of final bills, all invoices are audited and updated every night to ensure that the day of discharge is as quick as possible. The goal is to finish all discharges by 11 a.m. every day so that the same beds can be made available for the new admissions.
5. **IT Upgrades:** In order to assure faster procedures, IT systems were improved as well. The Hospital Information System (HIS) was automated to allow for a speedier billing procedure and the online access of diagnostic findings, ensuring that there was little delay.
6. **Daily Payment:** Ensuring that the attendants are prepared with the balance of the payment and logistical arrangements is difficult.
7. To limit the amount of time spent on the procedure, a ward-based coordinator must be in place to manage and monitor discharge.

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