Interventional Study to Reduce TAT in the Discharge Process at Medica Superspecialty Hospital, Kolkata

By

Meghna Rathi

Dissertation submitted for the partial fulfillment of the

MBA Hospital and Health Management

Academic year, 2015-2017

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INSTITUTE OF HEALTH
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IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that Ms. Meghna Rathi of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at Medica Superspecialty Hospital, Kolkata from 7th February, 2017 to 7th May, 2017.

The Candidate has successfully carried out the study designated to her 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 her future endeavors.

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GreenOT
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MEDICA Superspecialty Hospital
caring for life

CERTIFICATION NO : H-2013-0167
AN NABH ACCREDITED HOSPITAL

MHPL/HR-Communication/2017/05/9217 **6th May, 2017**

TO WHOM IT MAY CONCERN

This is to certify that **Ms. Meghna Rathi**, a student of MBA in Hospital and Health Management from Indian institute of Health Management Research (IIHMR) ,has successfully completed practical training at **Medica Superspecialty Hospital**, **Kolkata**, during **7th February 2017 to 7th May 2017**, as per her academic requirement.

She was found to be an efficient & dedicated student, and her conduct was found to be excellent.

Madhumita Roy

Madhumita Roy
DGM Human Resources

MD

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **"An Interventional study to reduce TAT in the discharge process at Medica Superspeciality Hospital, Kolkata**". and submitted by **Ms. Meghna Rathi** Enrollment No **IIHMR-U/20/2015-17/0303** under the supervision of **Ms. Geetika Goswami** for award of MBA in Hospital and Health Management of the University carried out during the period from **FEBRUARY 2017** to **MAY 2017** 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.

Meghna

Signature

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that all ethical issues have been considered while collecting data for my dissertation titled **"An Interventional study to reduce TAT in the discharge process at Medica Superspeciality Hospital, Kolkata"**.

Signature of student

DECLARATION

I do hereby declare that I am a student of MBA in Hospital and Healthcare Management, IIHMR University, Jaipur, Rajasthan session 2015-2017.

I would like to state that I have carried out my Dissertation on the topic "**An Interventional study to reduce TAT in the discharge process at Medicasuperspeciality hospital, Kolkata**

under the guidance of Dr Neha Gupta Assistant Maneger (Operations), for the partial fulfilment for the degree of MBA in Hospital and Healthcare Administration.

This project work is my own and has not been submitted to any of the other Institute or University for the purpose of award of any degree or diploma.

Meghna Rathi

IIHMR University

(2015-2017)

ACKNOWLEDGEMENT

The successful completion of the dissertation and final outcome of this project required a lot of guidance and assistance from different people and I consider myself fortunate to have so many people around to guide me.

Firstly I would like to extend my sincere regards to Dr. Ashok Kaushik, Dean (Academic & Students Affairs)– iihmr university and my mentor Ms. Geetika Goswami, Asst Professor.

The IIHMR University Jaipur for providing such a great learning opportunity.

I am highly thankful to Dr Neha Gupta, Assistant manager IP operations, Mrs Maheena yusuf Khan HOD of OP operations, at Medica Superspecialty hospital, Kolkata for his constant support, motivation and guidance throughout the project.

I take the opportunity to express my profound sense of gratitude and respect to all those who helped me throughout the duration of project.

Meghna Rathi

MBA-HM

The IIHMR University, JAIPUR

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INTRODUCTION

Discharge includes the medical instructions that the patient will need to recover fully. Discharge process is the point at which the patient leave the hospital and either return home or is transferred to another facility such as one for rehabilitation or to a nursing home. Discharge planning is a service that considers the patients needs after the hospital stay, and may involve various services such as nursing care, physiotherapy, dietary advice, post operative do's and don'ts, post operative follow up instructions, information about whom to contact in case of an emergency. How to identify warning signs and other services.

As the final step in the hospital experience, the discharge process is likely to be well remembered by the patient and relative, even if everything else went satisfactorily, a slow, frustrating discharge process can result in low patient satisfaction. The discharge process is critical bottleneck for efficient patient flow, slow and unpredictable discharge translates into a reduction in effective bed capacity and admission process delays.

The term discharge planning may be used to refer to the service provided to help patients arrange for services such as rehabilitation, physical therapy, occupational therapy, visiting nurses, or nursing home care. This service may be provided by a case manager or by the hospital's social service department. The patient may request this service, or the physician may make the request in the form of a referral to the department. The patient will need to be evaluated to see what services he or she requires, as well as what services he or she qualifies for (such as meals-on-wheels), or what services the patient's insurance will cover. The patient may be discharged home with a visit from a visiting nurse later the same day to assess the patient's need for these services and to make arrangements for him or her in the home. A person may be discharged home only when certain equipment such as a hospital-style bed and oxygen has been delivered to the home. If a patient feels he or she is being discharged before he or she is ready, the patient can file a complaint with the hospital's ombudsman.

Usually our doctors will inform the patient party a day in advance about the discharges so that one can make necessary arrangements for leaving the hospital. All care is taken to ensure that patient discharges take place in the minimum time possible. However it's advisable to get in touch with the floor coordinator once your doctor advises discharge for your patient.

The relative or care giver will have to complete the following:

- Clear all hospital dues.
- Return all hospital passes given to you for attendant and visitors.
- Understand the treatment follow up instructions.
- Hand over all hospital items given to you, to the nursing staff.
- Collect all your personal belongings.
- Vacate the cupboards allotted to you.
- Collect the discharge summary which contains information on your medical condition and treatment.
- Collect medicines, if any.

On clearing all the hospital dues, a release slip will be given to you, which is to be handed over to the ward nurse before leaving the ward.

Please contact the ward GRE in case you need assistance for transport home.

Kindly fill up the feedback form to help us continuously monitor our services so as to serve you better. Complaints and compliments help us assess and motivate us to do better.

General principles for effective discharge

1. The discharge planning process begin as soon as is practical after the patient is admitted to hospital. All patient should receive a comprehensive assessment of their actual and potential discharge needs by relevant members of the multi professional team.

2. No discharge should be considered „routine". All discharge have the potential to become complicated. Time spent talking to patients and assessing their needs at the start of the process can uncover potential problems and help to facilitate a smooth planned discharge.

3. A discharge date should be set as early as possible, although it is recognized that ultimately any discharge is dependent on the clinical progress of the patient and may be subject to change.

4. Discharge documentation should be concise, easy to use and most importantly, relevant. Staff should familiarize themselves with documentation used in the discharge process and ensure they are competent in its completion.

5. Despite pressures to maximize bed usage, patients should only be discharged when they are medically and psychologically fit to be discharged. Untimely discharge may result in a rapid readmission of patients transferred through the ICU after the recovery for two days on an average, thus vacating bed for the patients in the OT and making it possible for other patients who need a surgery to avail the services of the surgeon.

6. Communication between all department is very important. Team participating in the planning of a patients discharge should be aware of all other members involved, including those in external agencies.

7. Patient especially those requiring social care/ community nursing input should ideally not be discharged at weekends or late in the day.

<u>Nursing responsibilities for discharge</u>

1. The responsibility for deciding whether a patient is clinically fit for discharge rests ultimately with consultant, the responsibility for co-coordinating a smooth discharge process through providing medical care, aid to the patient, explanation of the medication that has to be taken by the patient at home etc, rests with nursing staff.

2. Every discharge should be treated as unique to the individual patient it concerns, but the following points should be considered

a) As soon as possible after the admission, a full assessment of the patients pot6entail discharge needs should be undertaken.

b) Every patient should have a named nurse who is responsible for facilitating their discharge. He/she should ensure that the nursing team is aware of the activities required to be undertaken to complete a smooth discharge.

c) Good communication is vital. The patient must be integral to their discharge planning and should be carefully involved and informed of planning and progress throughout the whole process.

Responsibilities of hospital pharmacy department

The role of the pharmacy department is to provide discharge medications and advice, where applicable, for all patients being discharged. The following points should be considered when planning the patients discharge

1. Nursing staff should ensure that the patient and if required appropriate relatives/next of kin/ care takers are given a full explanation of the medications that have been given for discharge(including the purpose of the drugs, why they have been prescribed and the dose to be taken and when). The services of the pharmacist should be utilized if there are any doubts regarding discharge medication.

2. The amount of tablets/ medicines to be dispensed to the individual patient on their discharge will be decided by the consultant.

RATIONALE

The discharge process in Medica Superspecialty Hospital, Kolkata is facing many challenges in terms of the long waiting time during the discharge of the inpatients. The cash patients other than the insurance/TPA patients again have to wait long hours for the completion of the process. The long waiting hours have high impact on the satisfaction of the patients. The operations team of the hospital constantly works on the process improvement. The rationale of the study conducted is to analyze the impact of the Discharge management framework on the discharges of the cash patients. The study provides a platform to study the discharge process of the cash patients in last six months and compare to it with the month of March and April

In the hospital planned cases are considered as planned only if the final summary is prepared, if the discharge is planned but we haven't received the final summary it is considered as unplanned case and there were more unplanned discharges than the planned one's which were leading to delay.

The study also aims to study the entire discharge process of the hospital in details.

Research Question-

- What are the gaps in the discharge process which are leading to delay?
- What are the factors leading to delay in discharge process?

Objective

1. To understand the process flow of discharges in the hospital.
2. To find out the gaps.
3. To find out the reasons of delay in discharge process
4. To recommend measures that can reduce the delay

LITERATURE REVIEW

Discharge is described as a selective process that distinguishes between patients who are able to continue the recovery process outside the hospital and those who are not yet ready to leave (Galai, Israeli, et al., 2003). Achieving safe, timely and person centered discharge from hospital to home is an important indicator of quality and a measure of effective and integrated care (Joint Improvement Team, 2014). Delayed discharge refers to the situation where a patient is deemed to be medically well enough for discharge but they are unable to leave hospital because arrangements for continuing care have not been finalized (Bryan, 2010). The Health Service Executive Special Delivery Unit (SDU) defines delayed discharge as: "**A patient who remains in hospital after a senior doctor has documented in the healthcare record that the patient can be discharged (Health Service Executive, 2013).** One systematic review, found that the percentage of inappropriate use of acute care beds ranged between 15% and 50% (Sheppard, 2010). The issue of delayed discharge from hospital is a longstanding concern nationally and internationally and although it is a common problem, few countries have managed to successfully tackle it (Joint Improvement Team, 2010). According to Hendy et al, (2012), discharge delays are costly for and depressing for patients.

To improve the process of discharge and address inconsistencies in discharge documentation and referral, a national code of practice for integrated discharge planning was published by the HSE in 2008 with local guidelines for nurse / midwife-facilitated discharge planning (HSE 2008, 2009). These have recently been replaced by the Integrated Care Guidance: A practical guide to discharge and transfer from hospital (HSE, 2014). The Health Information & Quality Authority (2013) has developed National Standards for Patient Discharge. Similar planned approaches to patient discharge were introduced through policy and guidance by Departments of Health in England, Wales, Northern Ireland and Scotland. The UK National Health Service programme introduced 'Ready to go' comprehensive guidance on planning the discharge and transfer of patients (DH, 2010). Nevertheless, delays in the discharge of 14 Post-hospitalisation, patients, particularly those who are older and /or who suffer from chronic conditions are considered more at risk (Mahoney *et al* 2000; Meinow*et al,* 2005). Over the past 20 years a substantial body of literature has emerged on various aspects of the transition from hospital to home. There is research on patient readiness for discharge (Weiss *et al* 2006; 2007; Coffey & McCarthy 2012;

Brent & Coffey, 2012), interventions to improve the process (Chapin *et al*. 2014; Schuller *et al*, 2014, Saleh,*et al.*2010), and examination of the interface between acute and community services (Johnson *et al*, 2013; Arbaji*et al*, 2008, Coffey & McCarthy, 2012). Different service delivery models have been described in the literature including rehabilitation and intermediate care in the UK (Dahl *et al*, 2014) and hospital at home in the US (Sheppard, *et al.* 2010). A number of factors have been associated with delayed discharge including: patient characteristics (Challis, Hughes *et al.* 2014); organisation of care in hospital (Glasby, *et al.* 2006); access to long-term care and community services on discharge (Gallagher *et al.* 2008). Evidence exists that patients who experience delayed discharge have higher risk of negative outcomes, for example increased anxiety (Kydd, 2008); increased exposure to hospital acquired infection.

A comparative time motion study of all types of patient discharges in a hospital by Tak, Kulkarni, and More states that any hospital needs to work on finer aspects of the discharge process, to make it more patient friendly and less time consuming as it directly connects to patient satisfaction. This time motion study recorded the time needed for completion of discharge process for all type of discharges. Turn Around Time(TAT) or Time motion study is a direct and continuous observation of a task, using a stopwatch, video camera etc, to record the time taken to a accomplish a task. It concluded that tedious discharge process contributes to patient dissatisfaction. Another study on time management of discharge and billing process in tertiary care teaching hospital by Janita VinayaKumari aimed at ascertaining average time taken for the patient to be discharged. This article on role of discharge planning and other determinants in total discharge time by Mehta, Nair, Rao and Shukla established discharge time, as a crucial quality indicator and presented measures to control the discharge time. The study concluded that planning the discharges reduced the total time of discharge process. Departmental clearance and patient-related factors also impact the discharge time. Hence, an effort should be made to plan as many discharges as possible to enhance the discharge flow process. Failure to synchronize admissions and discharges commonly results when discharges are not managed efficiently. Creating a more consistent and predictable discharge schedule can help improve flow. Traditionally, hospitals have attempted to "batch" discharges by establishing a set time for all patients to be discharged; however, this approach has been largely unsuccessful. Scheduling the discharge creates a continuous flow process, spreading discharge times throughout the day. This approach streamlines the process, better addresses the needs of patients and families, and helps

coordinate the placement of patients who are admitted and transferred with discharges that occur throughout the day.

Methodology:

Study design: Interventional study

Study setting: Medica super specialty hospital Kolkata

Time frame: 7th February 2017 to 7th May 2017.

Sample technique:

Inclusion- All schedule (cash, TPA & corporate) are included.

Exclusion- Discharges direct from emergency department are not included.

Sample size: 500

Methodology: A pre-post study was done for all the discharge cases in the hospital and difference in TAT was recorded.

Data entry- Manually

Data Analysis- Using MS Excel through bar charts, pie charts.

Target time for discharges: The MedicaSuperspecialty hospital has set some target time for the discharges of different schedule patients, which are as follows:

- **Cash discharges**: 3 hours from time of declaration
- **Corporate discharges**: 4 hours from time of declaration
- **TPA discharges**: 6 hours from time of declaration

PRE INTERVENTION PHASE

Process flow:

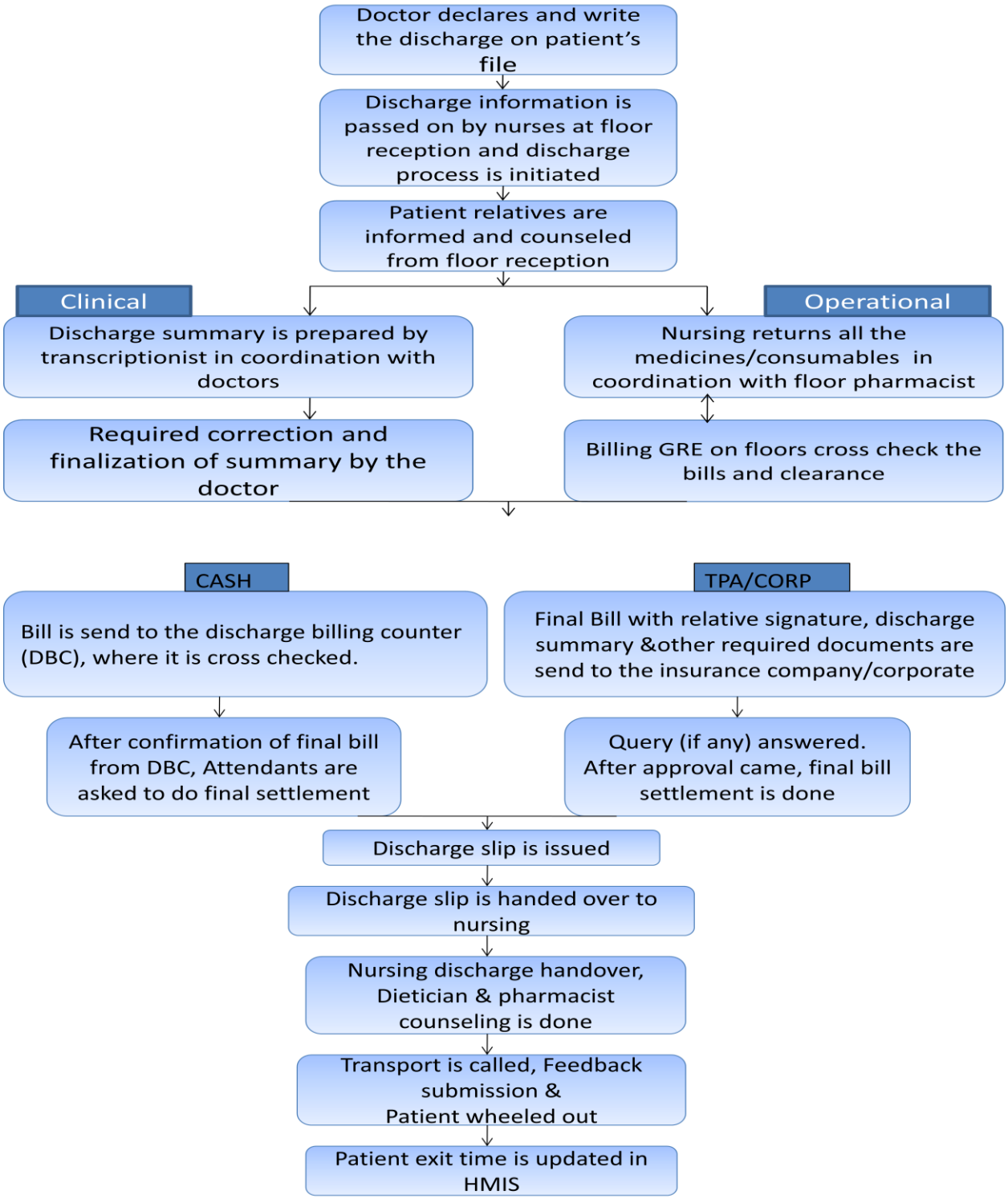


Table 1

Steps divided for study:

STEPS	Description	Ideal time
Step 1	**Time taken from discharge declaration to the receiving of final summary**	**1 hour**
Step 2	**Time taken from receiving final summary and bill finalization**	**30 minutes**
Step 3	**Time taken from receiving final summary and bill finalization**	**45 minutes**
Step 4	**Time taken from discharge slip handover to floor reception to the physical discharge of patient**	**30 minutes**

Table 2

For the better supervision of discharge process the Medicasuperspecialty Hospital has set the TAT for the major four steps of discharge process so that the overall TAT for the process could be maintained.

Average time taken in the steps (hours:minute) -

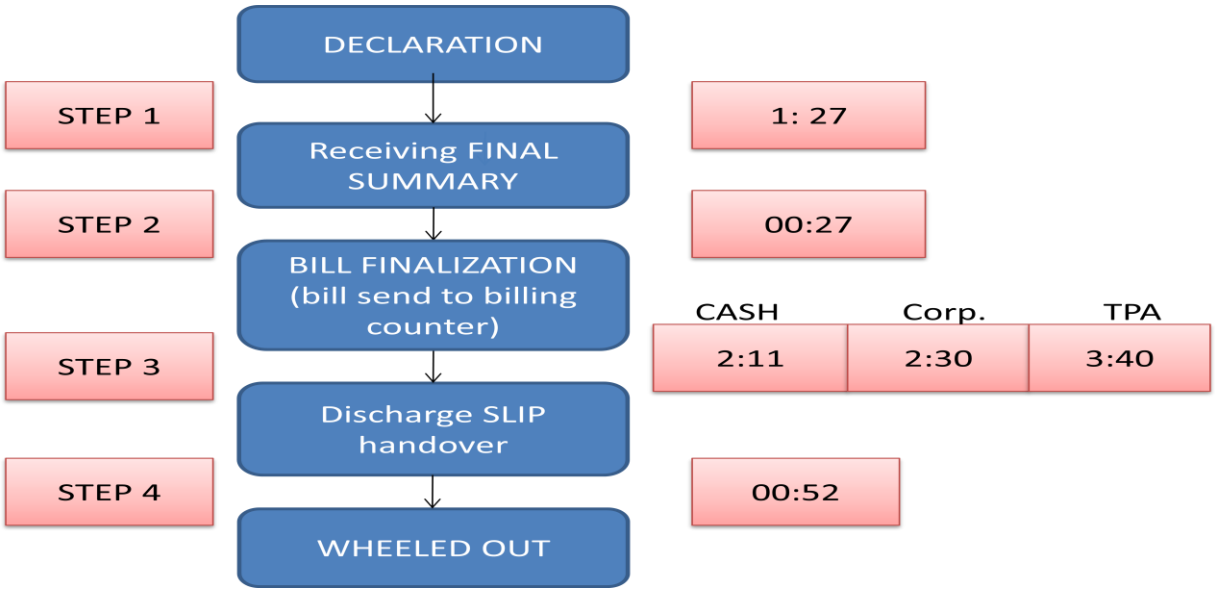


Table 3

The above flow chart showing the average waiting time of the steps used for the study by which we can compare the delay we are facing in step wise manner, which will help to focus more on the steps where it is required.

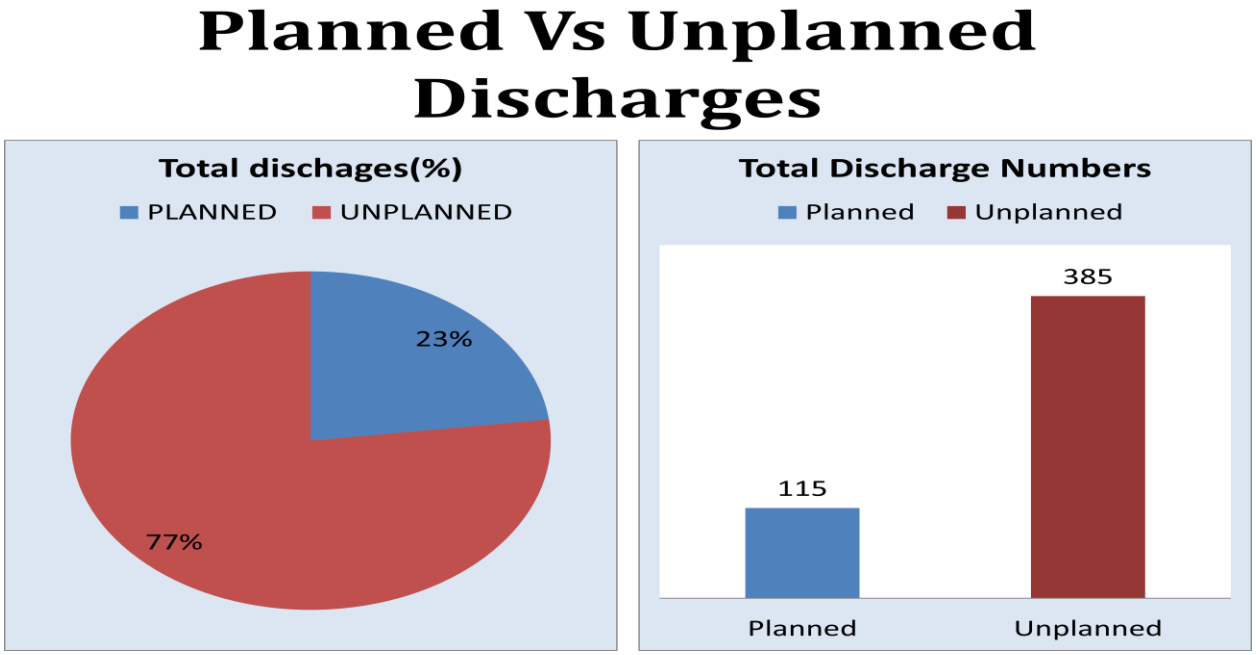


Figure 1

In the hospital the discharges are considered as planned only when we receive the final summary of the patient a day prior to the discharge day at floor reception. So the above charts are showing the numbers and percentages of planned discharges and unplanned discharges.

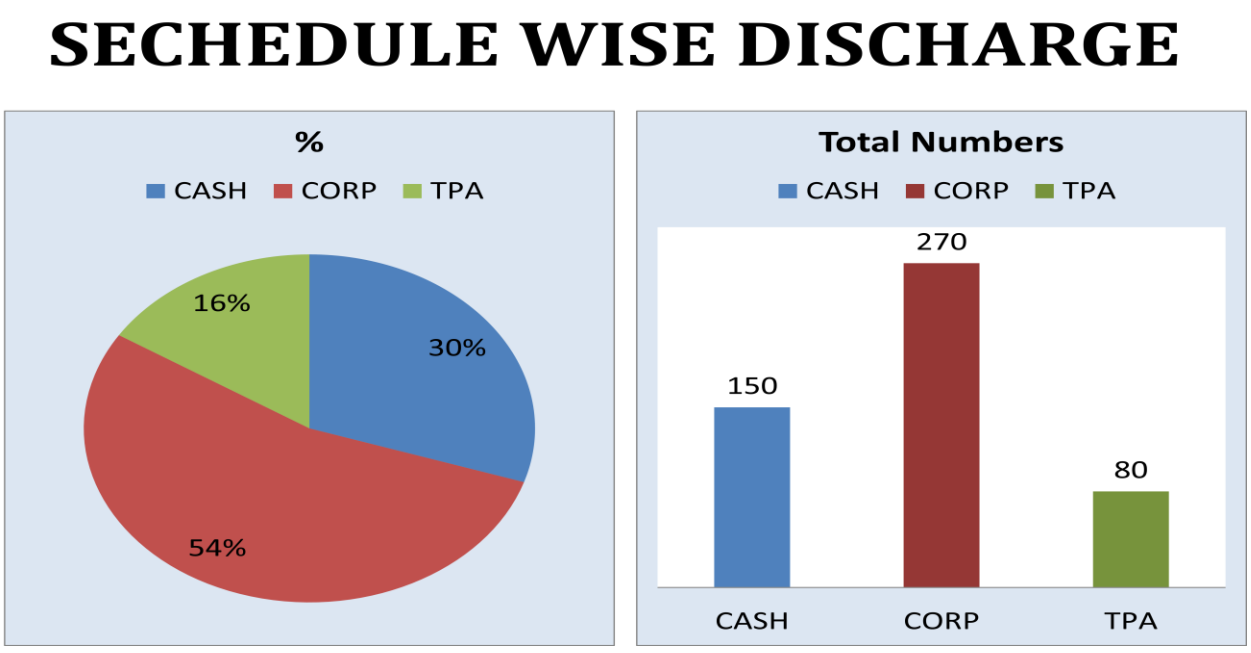


Figure 2

The data collected for the study has three categories of discharges which are cash, corporate & TPA the segregation of data in the collected data is shown in above chart.

Finding from current TAT

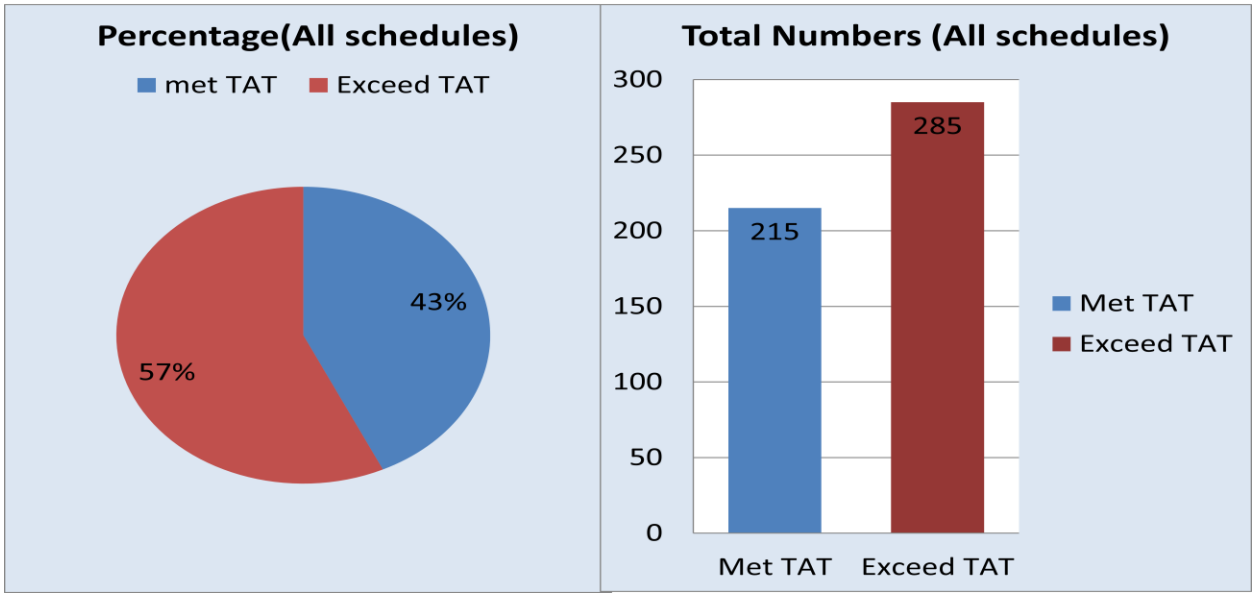


Figure 3

The above chart is showing the number and percentages of the discharges which met the TAT and those which exceeded the TAT before the intervention in the study.

TAT for different schedules

Schedule	Average waiting time	
Cash	Planned	Unplanned
	3 hours 20 minutes	4 hours 45 minutes
TPA	Planned	Unplanned
	4 hours 28 minutes	7 hours 19 minutes
Corporate	Planned	Unplanned
	4hours 12 minutes	4 hours 40 minutes

Table 4

From the observation the average waiting time for different schedules are comes out to be as showing in above table. The average waiting time for planned and unplanned cases are calculated separately.

Bifurcation of exceed TAT

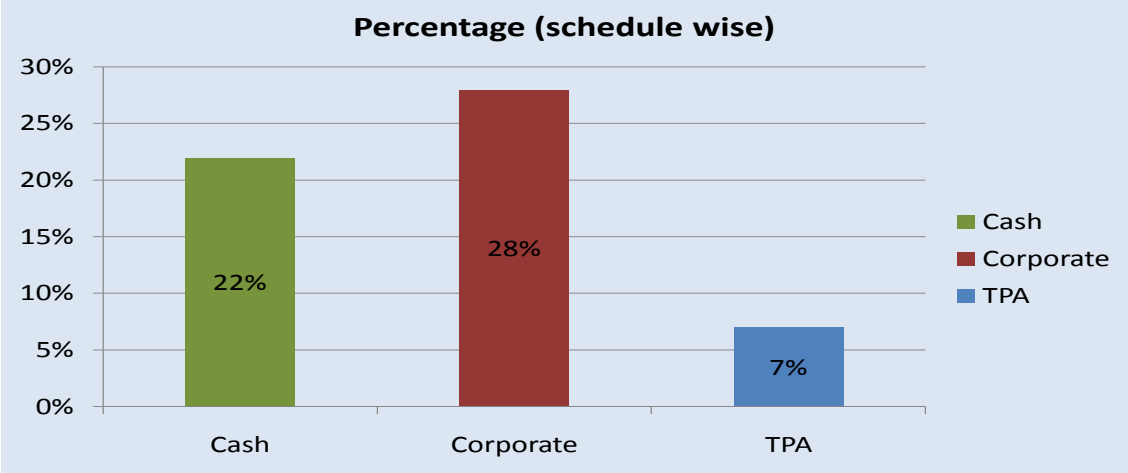


Figure 4

As we can see in the above graph that we have exceeded the TAT in57% of the cases. The above bar graph is showing the bifurcation of that exceeded TAT, whose reasons are mentioned in the below next graph.

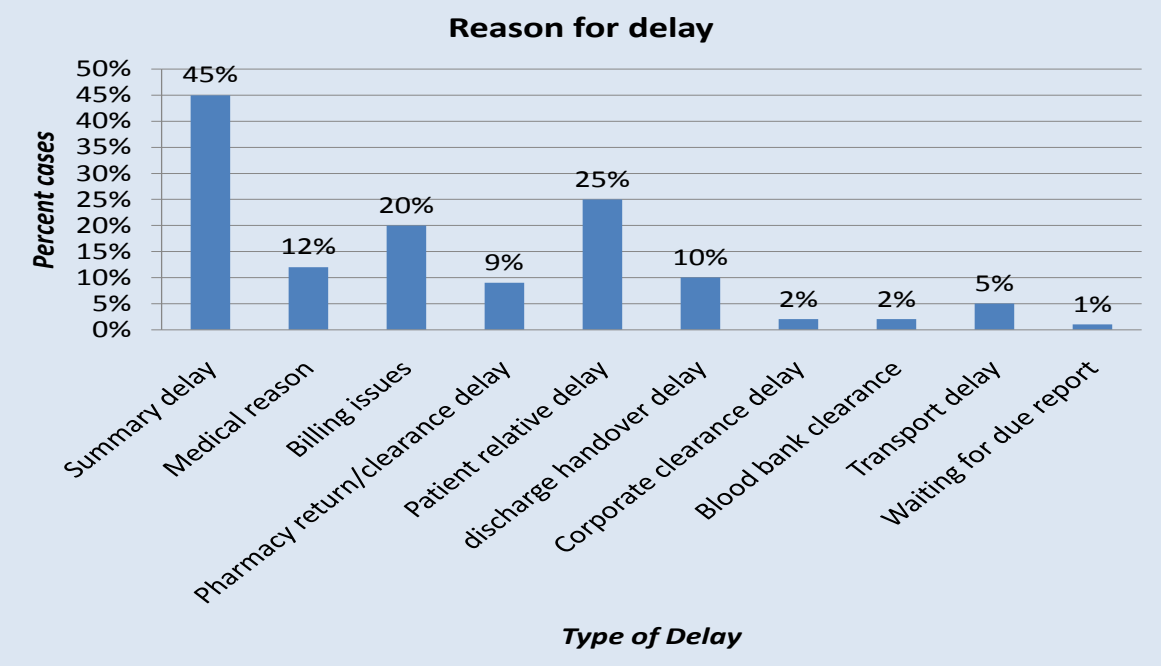


Figure 5

INTERVENTIONAL PHASE

New initiatives – the interventions made for reducing the TAT are as follows:

- Final Discharge billing settlement (cash/ TPA) started from the IPD floors itself. Now we have discharge billing counter at every IPD floor (4^{th}, 5^{th} & 6^{th} floor) with designated billing persons for doing discharges.
- One person (medical administrator) is assigned for the Follow-up of discharge summary so as to ensure the timely receiving of discharge summary within the TAT which is 1 hour from declaration of discharge to the receiving of final summary.
- One person (assistant manger IP operations) is assigned for the Follow up of Discharge status, i.e. other than the summary part- pharmacy clearance, transport, discharge handover etc. To minimize the unwanted delays in the process.
- All planned TPA discharges documents are sent for approval by TPA department a day prior to discharge.
- New category of discharges- probable discharges is included in the discharge tracker register which is present on floor receptions, a day prior to discharge.
- Verbal feedback of all discharge patients before they wheeled out for quick action on complaints.

POST INTERVENTION PHASE

Results -

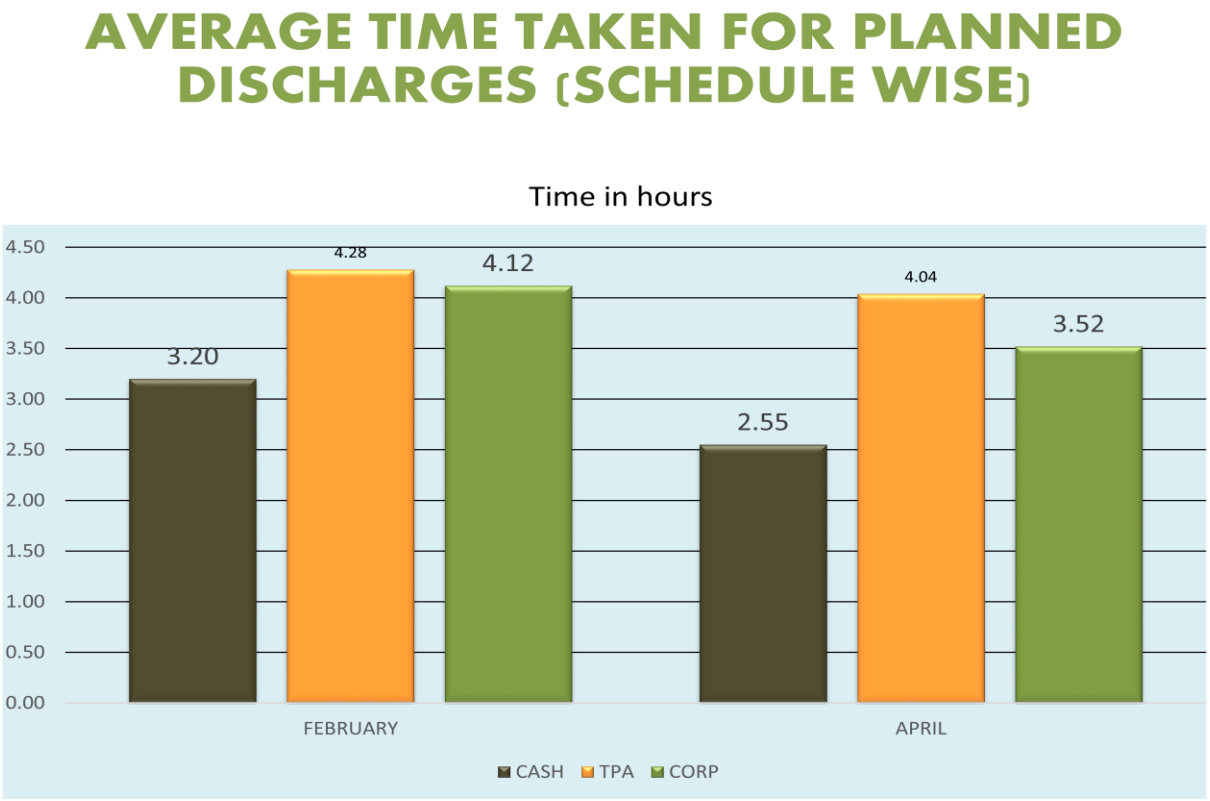


Figure 6

Analysis-

- Cash discharges- after the implementation the TAT reduced to 25 minutes
- TPA discharges- after the implementation the TAT reduced to 24minutes
- Corporate discharges- after the implementation the TAT reduced to 20 minutes

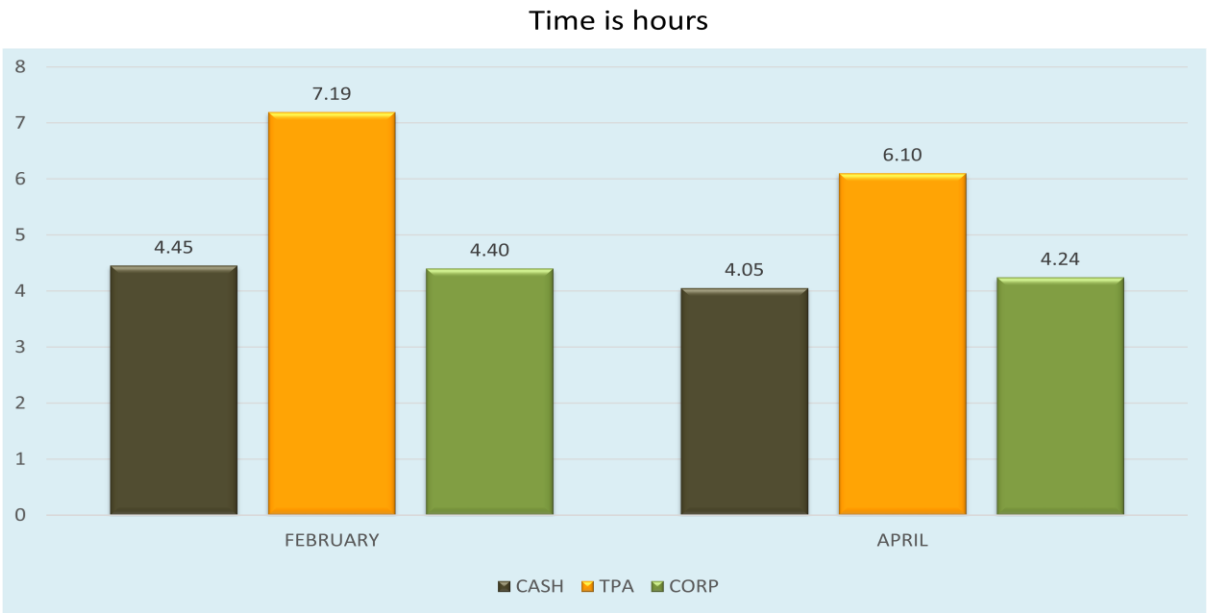
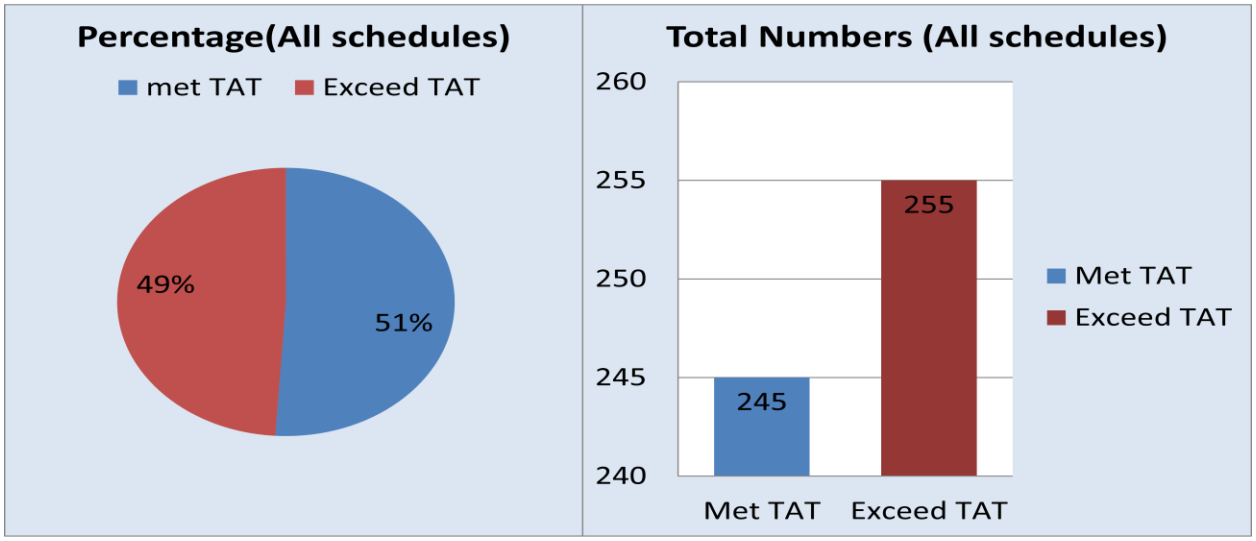


Figure 7

Analysis-

- Cash discharges- after the implementation the TAT reduced to 40 minutes
- TPA discharges- after the implementation the TAT reduced to 1 hour 9 minutes
- Corporate discharges- after the implementation the TAT reduced to 16 minutes

Met TAT Vs Exceed TAT



The percentages of patient discharges which met the TAT is increased to 8%

Figure 8

Cash discharges-

Average waiting time reduced	Planned	Unplanned
	25 minutes	40 minutes

Table 5

Corporate discharges-

Average waiting time reduced	Planned	Unplanned
	20 minutes	16 minutes

Table 6

TPA discharges-

Average waiting time reduced	Planned	Unplanned
	24 minutes	1 hour 9 minutes

Table 7

Conclusion

The Medica Hospital like any other hospital was facing difficulties with the discharge process. The discharge of the cash patients requires strict monitoring and control for the effective results of the discharge management framework. This requires a focused approach and joint commitment from all the concerned departments. The process requires continuous reviews and corrective measures.

The interventions done were helpful in reducing the TAT. The percentages of patient discharges which met the TAT is increased to 8% and continual monitoring of the same will help in sustaining the TAT.

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