Summer Placement

in

Max Super Speciality Hospital

Mohali, Punjab

(8^{th} April 2013- 7^{th} June, 2013)

Report on Observational learning and the Project Report on "To trace the flow of the Discharge Process"

Submitted to:

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Submitted By:

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Post-graduate Programme in Hospital Management

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Mudita Puri has completed her training in Hospital Administration of Max Super Speciality Hospital, Mohali on 7th June, 2013.

During her training (8th April, 2013 to 7th June, 2013) she was part of hospital set up and was reporting to Dr. Ashutosh C Sood- General Manager- Operations.

She is hard working and sincere towards her work. We wish her all the best in her future endeavors.

For Max Super Specialty Hospital

Authorized Signatory

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CERTIFICATE

This is to certify that Dr. Mudita Puri , student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management and Research, Jaipur Batch 17th has undergone summer training in Max Super Specialty Hospital, Mohali from April 8th to June 7th 2013.

The candidate has successfully carried out the study assigned to her during summer training and her approach to study has been sincere, scientific and analytical.

I wish her success in all her future endeavors.

29/06/13

Prof. Abhishek Dadich
Assistant Professor
Faculty and Mentor
IIHMR, Jaipur

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

ACKNOWLEDGEMENT

This study is an accomplishment due to the timely help, guidance and consent support of several people. The investigator owes a deep sense of gratitude towards all those who have contributes to successful completion of this endeavour.

I am grateful to **Dr. Ashutosh C Sood, General Manager Operations**, Max super speciality Hospital, Mohali for allowing to do the study in this hospital under their able guidance, direction and encouragement.

I offer my gratitude and respect to **Ms Tanvi Sood** and **Ms Shaveta Vasudev**, Floor Co-ordinators for their encouragement and constant support guidance at every step of this project.

My sincere thanks to all the staff members of Max Super Specialty Hospital, Mohali for their kind cooperation in providing the needed information and help for the study.

I am also grateful to **Dr. Ashok Kaushik,** Dean, IIHMR, Jaipur, for giving us an opportunity to take up this study at Max Super Specialty Hospital, Mohali.

I offer my gratitude and respect **to Mr. Abhishek Dadhich**, my mentor for his constant guidance and support in completion of this study and for sharing his ideas and encouragement.

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ACRONYMS / ABBREVIATIONS

IPD – In Patient Department

RMO – Registered Medical Officer

ECHS- Ex- Serviceman Contributory Health Scheme

TPA – Third Party Administrator

HIS – Hospital Information System

ICU – Intensive Care Unit

GDA – Ground Duty Assistant

GMO – General Manager Operations

CPRS – Computerized Patient Record system

EXECUTIVE SUMMARY

This study was conducted to analyze the discharge process in the IPD of the max super specialty hospital, Mohali and to optimize the discharge process by finding out the challenges at each step. The primary data was collected through the observation of the discharge process in the IPD using the checklist, the information from the HIS and by discussion with the staff involved in the discharge process. The total sample consisted of 200 patients that got discharged from 10th April to 25th May, 2013 in the hospital including both the planned as well as unplanned discharges. It included the discharges whose payment was done through cash as well as the cashless patients (which included TPA & ECHS). The data was collected in two halves.

The results of *first phase* showed that average duration of discharge process in case of **cash payment discharges** for **planned discharges** is more which is 3 hours whereas, its 2 hours 19 minutes for unplanned discharges. Average duration of discharge process for **ECHS patients** doesn't vary in both the cases and is 3 hrs 41 min in **planned discharges** whereas 3 hrs 56 min in **unplanned discharges**. **TPA** itself is long procedure so it takes 5 hrs 51 min in **unplanned discharges** and 4hrs 53 min in **planned discharges.** So, after the first phase data collection, the flaws were found and instructions were made to focus on that.

In *second phase* findings, it was observed that 74% of the total discharges are planned discharges. It was found that the time duration for cash payment for planned discharges has reduced in second phase to 2 hrs 14 min. The time duration for ECHS planned discharges has also shown reduction of 10 minutes. Summaries takes less time in planned discharges as compared to unplanned discharges because more focus is given to planned discharges. Therefore, the time between announcement of discharge and completion of summaries have also reduced in planned discharges. The billing staffs became more active in generating the bill faster and also started informing the nurses about the generation of bill. In second phase, there was a marked improvement in number of planned discharges and a significant decrease in the unplanned discharges. But only in 43 % cases, summaries were ready before discharge date in case of planned discharges. Therefore, it was concluded that more focus can be given for getting the summaries ready before discharge date. The billing staff should be more active in informing the nurses about the generation of bills. The aim should be to reduce the number of unplanned discharges as well if any unplanned discharge is occurring, TAT for the process should also be taken seriously. Long time taken for discharge process leads to unnecessary bed occupancy, thus affecting both, the existing patients to be discharged and the new admissions in the hospital.

INTRODUCTION

DISCHARGE PROCESS

In the present competitive world, quality of health care is playing an important role in the modern society. Among various factors affecting the health care system, discharge process is one of the important factors related to patient satisfaction. Discharge from the hospital is the point at which the patient leaves the hospital and either returns home or is transferred to another facility such as one for rehabilitation or to a nursing home. Discharge from hospital is a process involves the development and implementation of a plan to facilitate the transfer of an individual from hospital.

The discharge process is critical bottleneck for efficient patient flow. Slow or unpredictable discharge translates into a reduction in effective bed capacity and admission process delays. Patients can also be diverted to other hospitals. In fact, the discharge process and scheduling in patient surgery rank as the two biggest factors impacting wait times for in- patient beds.

A good discharge process leads to:

A) Increase patient satisfaction

B) Decreased length of stay

C) Positive impression of the hospital

D) It will help hospital to get more number of patients by the way of referrals.

In effect, discharge delays create an upstream tidal wave of patient flow constraints which negatively impact the patient satisfaction, patient safety, hospital capacity and financial performance. So whether we look at the discharge process from the perspective of patient's wellbeing or the hospital's need to streamline bed capacity, the discharge process is of important aspect of modern hospital care.

It is increasingly evident that effective hospital discharges can only be achieved when there is good joint working between the departments of hospital organization, TPA, consultants, nurses, floor and bed managers, billing staff, pharmacy in the commissioning and delivery of services including a clear understanding of respective services, without this the diverse needs of the patients and the family members can't be met. Discharge planning should begin shortly after the admission of the patient in the hospital.

RATIONALE

As the final step in the hospital experience, the discharge process is likely to be well remembered by the patient. Even if everything else went satisfactorily, a slow, frustrating discharge process can result in low patient satisfaction. It is an important area which touches the patients' emotion; influence the image of the hospital and patient satisfaction. Patients more likely return to the hospital where they have experienced an efficient discharge process when they seek next treatment. In turn, efficiency and productivity are increased at the hospital. Therefore, the demand for effective health services is ever increasing. The discharge process represents the final contact between the patient and the hospital health professionals, and the outcomes of all procedures undergone by the patient are recorded at this stage.

Improving the quality of the discharge process should therefore lead to an increase in patient satisfaction. As a result patients are likely to return to a health centre where they have experienced an efficient discharge process when they next seek treatment. In turn, efficiency and productivity are increased at the hospital .The delay in discharge process leads to dissatisfaction and affects the image of the hospital. The time management study on discharge process aims to give better services for the patient satisfaction within the minimum time and also to improve the financial performance of the hospital. This can be done only with the help of thorough study of time taken for the whole discharge process beginning from Discharge order time till the patient leaves the Hospital.

OBSERVATION

Following is the procedure which was observed before conducting the study on discharge process in the hospital.

Consultant comes for rounds in the morning (in the IPD) and announces the discharge and briefs the concerned RMO for the discharge summary.

↓

As soon as Discharge is announced, concerned nurse checks for the bed side medications and returns it to the pharmacy and intimate it in HIS.

↓

RMO prepares the discharge summary and is counter signed by the consultant.

↓

In case of ECHS patients, nurse indents discharge medications for patient through HIS after the summary is prepared.

↓

Simultaneously, the concerned nurse arranges all the documents like investigation report in discharge file.

↓

After the summary is prepared, the nurse intimates the bill in HIS.

↓

The billing staffs at the front office receive the intimation and check for the clearance from lab, pharmacy, etc. and make the final bill.

↓

The nurse is informed after the bill is generated and the attendants are sent to do the payment and get the clearance slip at the front office.

↓

Attendants give the clearance slip to the nurse and nurse explains them the summary and handovers the discharge summary and investigation results to the patient.

↓

Then, the patient leaves the hospital.

OBJECTIVES

General Objectives:

1. To understand the discharge flow in IPD.

Specific Objectives:

1. To measure the average time taken for a discharge process in IPD.
2. To determine the gap between the standardized discharge time and the time taken for a discharge in the IPD of the hospital.
3. To find out the factors leading to delay in the discharge process.
4. To suggest the measures to improve the discharge process time.
5. To put forward suggestions and recommendations based on the findings that can help to overcome the root problem.

RESEARCH METHODOLOGY

STUDY DESIGN:

Quasi Experimental Study

STUDY POPULATION:

The patients getting discharge from the IPD in the super specialty hospital were observed and tracked for the study.

***SAMPLE SIZE*:**

Total 200 patient discharge cases were observed and followed for the discharge process study.

SAMPLING METHOD*:*

Convenience Non - Probability Sampling Method was adopted for the selection of samples.

DATA COLLECTION TECHNIQUES:

Following was the plan followed for the data collection:

Primary data was collected through:

1. Direct observation of discharge process in IP Department of the hospital.
2. Discussion with Floor manager, RMOs, nurses and other service providers.
3. Billing information was collected from HIS.

DATA COLLECTION TOOL*:*

Data was collected through an Observation Checklist containing the following components:

1. Name of the patient and mode of payment.
2. Time at which consultant announces discharge.
3. Summary start time and end time.
4. Time taken for the return of medications by nurse.
5. Time at which nurse indents the medicine and receives the medicines for ECHS patients.
6. Time at which bill is intimated.
7. Time at which bill is generated
8. Time at which payment of bill is done

DATA COMPILATION:

A sample size of 200 patients was taken for the purpose of study.

The entire sample was divided into two parts:

- The First Phase and;
- The Second Phase.

Particulars of the First Phase:

1. It was collected in the time period between 10th April to 26th April, 2013; i.e.; for 15 days.
2. It consisted of a sample size of **65 patients.**
3. Out of these 70 patients; 34 were in the category of planned discharges and 36 were in the category of unplanned discharges.

Particulars of the Second Phase:

1. It was collected in the time period between 27th April to 25th May, 2013,i.e.; for 25 days.
2. It consisted of a sample size of **135 patients.**
3. Out of these 135 patients; 100 were in the category of planned discharges and 35 were in the category of unplanned discharges.
4. This shows an improvement in the process of discharge as number of planned discharges has increased which thereby decreases the time in preparation of discharge summaries and overall decrease in the TAT for discharge.

DATA ANALYSIS:

VARIABLES SELECTED:

The analysis was carried out in accordance with the following variables:

- Time when doctor comes for rounds and announces the discharge
- Time taken to complete and sign the Discharge Summary
- Time between the announcement of discharge by the doctor and completion of summary
- Time taken for the medicine indent and receive of medicines
- Time taken for the bill intimation and generation of the bill
- Time between the generation of bill and payment of the bill.

MODE OF PAYMENTS:

There were two modes of payment:

- Cash patients; who did their bill payments by means of cash.
- Cashless Patients; which included:
  TPA Patients;
  ECHS Patients

The time taken for the entire flow of discharge was noted down based on the observation. The patients were divided into the various categories according to the mode of payment i.e; either cash or cashless patients and data were collected. The entire sample was collected for a period of 40days. There were two categories according to which the discharges used to take place:

A) Planned Discharges;
B) Unplanned Discharges

For the early and timely discharge of the patients there should be more number of planned discharges and a less number of unplanned discharges.

Table 1: Difference between planned and unplanned discharges:

Serial Number	Planned Discharges	Unplanned Discharges
1	The discharges which are planned a night before by the consultant doctor.	The discharges which the consultant doctor announces all of a sudden
2	The discharge summaries are already made a night before by the RMO's on the duty. These can be either provisional or the final ones.	The discharge summaries are to be prepared as soon as the doctor announces the discharge which increases the overall time for the discharge process.
3	The nurses return the bedside medicines a night before and thereby decreasing the overall time for the discharge on the intended date.	The nurses are to file the return of the medication after the doctor announces the discharge thereby a longer span of time for the discharge.

4	It is the best means to reduce the TAT for the discharge process	It takes a longer time and creates a panic for the nursing staff and the patients so it is not a good means to discharge the patient.

- For the analysis, the categories of the planned and unplanned discharges were made separately. The findings were hence noted down and the analysis done.

Time Period	**Total discharges**	**Planned discharges**	**Unplanned discharges**
First Phase	65	29	36
Second Phase	135	100	35

Table 2: Shows the number of planned and unplanned discharges in each phase of the study period.

Types of discharges	**First phase**	**Second phase**	**First phase**	**Second phase**
	Unplanned discharges (in Hrs)	**Unplanned discharges (in hrs)**	**Planned discharges (in hrs)**	**Planned discharges (in hrs)**
Cash	2:19	2:55	3:04	2:13
ECHS	3:56	4:40	3:41	3:30
TPA	5:51	4:44	4:53	4:32

- The data for the three categories of mode of payment was recorded for the first phase and the second phase according to the planned and the unplanned discharges.

Table 3: Shows the total average time for the discharge process in both the first and the second halves.

The TPA and the ECHS patients were covered in the category of cashless patients.

Average Duration of discharge

Time Period	Unplanned discharges	Planned Discharges
First Phase	3hours 11 minutes	3 hours 44 minutes
Second Phase	3 hours 7 minutes	3 hours 25 minutes

Table 4: Shows the average duration of discharge for the first and the second phase for both the planned and unplanned categories separately.

- Time taken for different steps involved in discharge process:

	First phase	**First Phase**	**Second phase**	**Second phase**
VARIABLES	**Unplanned discharges**	**Unplanned discharges**	**Planned discharges**	**Planned discharges**
Time when doctors come for rounds and announces discharge	10:53 am	10:25 am	9:53 am	10:17 am
Time taken to complete the summary	42 min	1 hr	1 hr 35 min	40 min
Time between the announcement of discharge and completion of summary	48min	1hr 24min	1 hr	45 min
Time taken for medicine indent and receiving of medications	52min	40min	10 min	32 min
Time taken for bill intimation and generation of bill	38 min	25 min	47 min	37 min
Time taken for the generation of bill and payment of bill	1hr 17min	1hr 20min	1 hr 32 min	55 min

TABLE 5: shows a comparison between the TAT for the various variables in the first and the second phase.

STUDY FINDINGS:

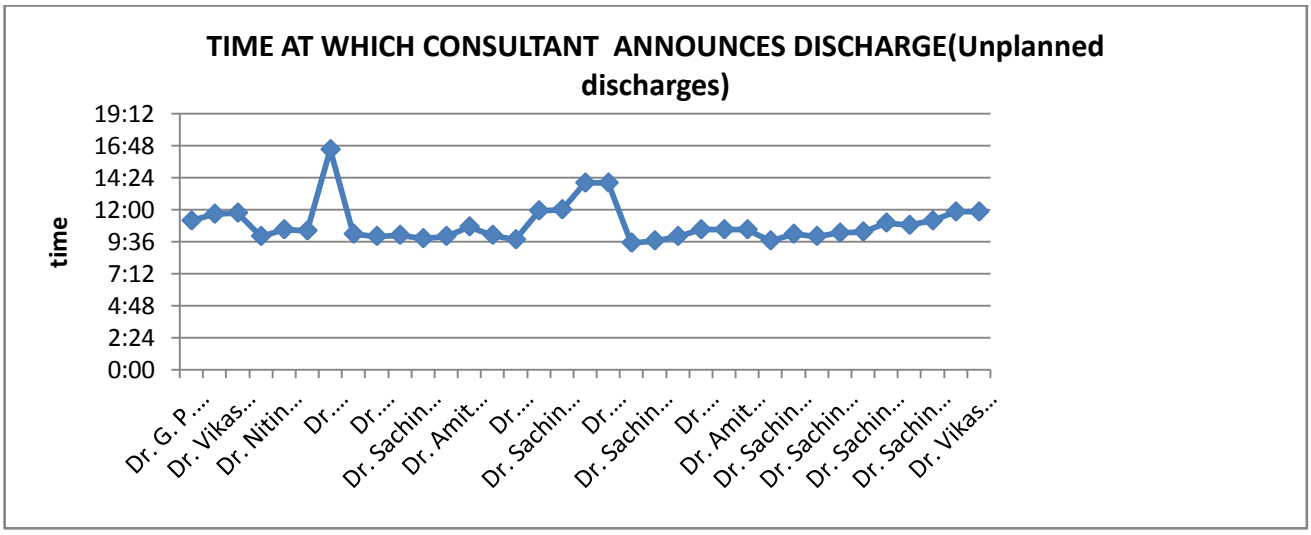
After the study on 200 patients and the analysis, there were certain findings which were mentioned as below.

First Phase:

Following parameters were observed and computed to know the time taken for each activity.

1. ***TIME WHEN DOCTORS COMES FOR ROUNDS AND ANNOUNCES DISCHARGE:***

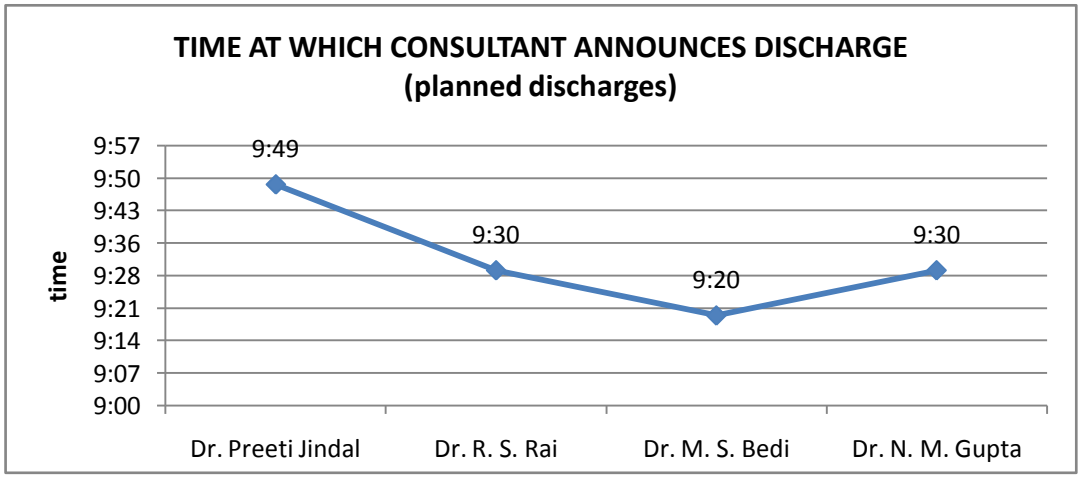
Graph 1(a):



Inference:

Average time when doctor comes for rounds and announces discharge is at 10:30 a.m. for unplanned and 9:52 a.m. for planned discharges.

Graph 1 (b)

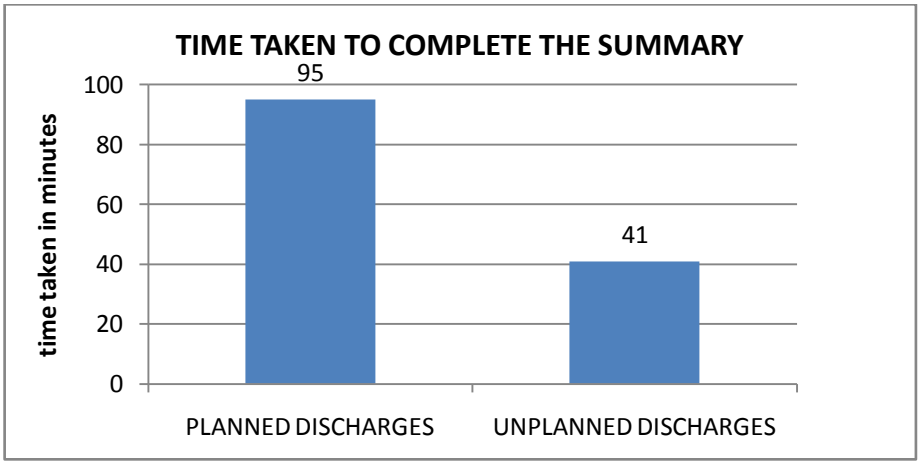


Inference:

Consultants come late for rounds in unplanned discharges as compared to planned discharges.

2. ***TIME TAKEN TO COMPLETE THE SUMMARY*** :

Graph 2



Inference:

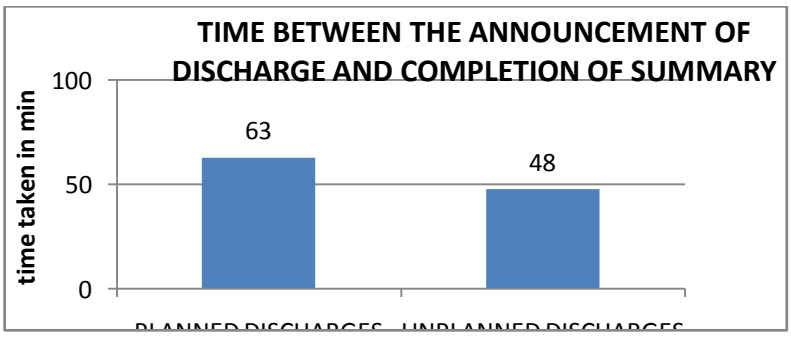
Average time taken by consultants and RMOs to complete the discharge summary is 41 minutes in case of unplanned discharges whereas it takes 95 minutes in case of planned discharges.

➢ ***Reasons for delay***:

- In case of unplanned discharges, RMOs take longer time to complete the summaries as they are assisting the consultants on rounds when they are supposed to write the summaries.
- In case of planned discharges, either the summaries are not ready on time or are ready but not co-signed by the consultants. So it causes delay in the procedure.

3. ***TIME BETWEEN THE ANNOUNCEMENT OF DISCHARGE AND COMPLETION OF SUMMARY :***

Graph 3



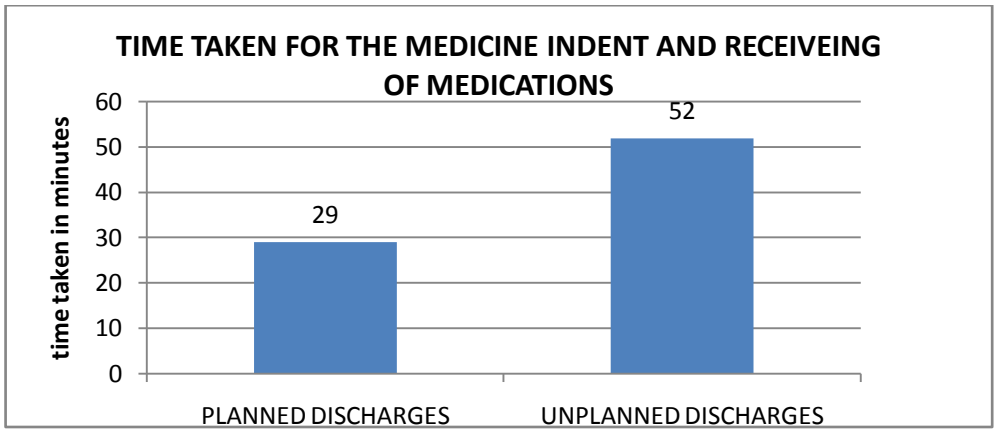
Inference:

Average time taken between announcement of discharge and completion of summary is 48 minutes for unplanned discharges and 63 minutes for planned discharges.

- *Reasons for delay*:
    - In case of planned discharges, summaries are ready but not signed by consultants so it takes much longer time.
    - After the completion of rounds, RMOs start writing summaries and it takes much time.

4. ***TIME TAKEN FOR THE MEDICINE INDENT AND RECEIVEING OF MEDICATIONS*** :

Graph 4



Inference:

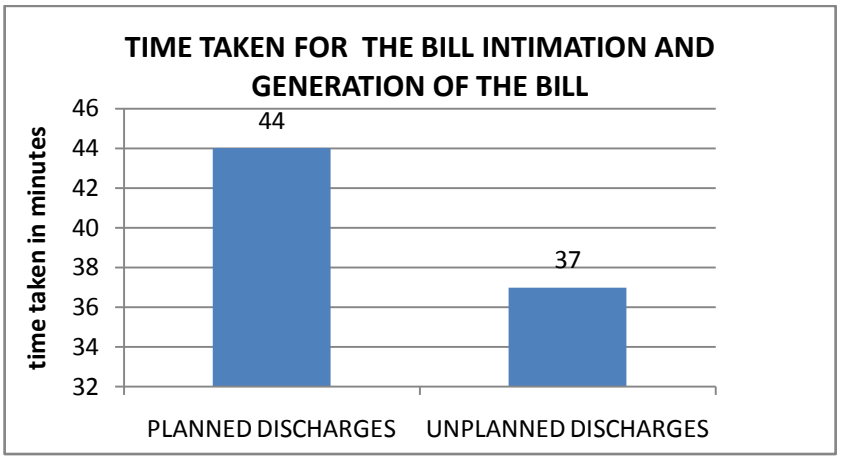
Average time taken for the medicine indent and receiving of medications is less in planned discharges i.e. 29 minutes whereas it takes 52 minutes in unplanned discharges.

- *Reasons for delay*:

- In case of planned discharges, medicines are indented prior to completion of summary whereas in unplanned discharges, medications are indented after summer is ready so it takes longer time.
- Nurses are assigned 4 to 5 patients and they also assist consultant on rounds and start their process after the completion of the rounds.
- Sometimes, Pharmacy creates delay in issuing the medicine and GDA takes time to deliver it to the nursing station.

5. ***TIME TAKEN FOR THE BILL INTIMATION AND GENERATION OF THE BILL:***

Graph 5:



Inference:

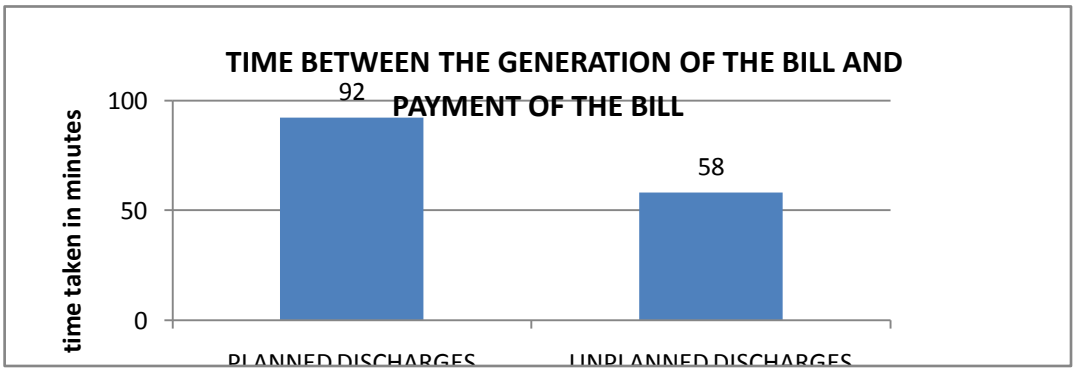
Average time taken by the billing department to generate the bill once it is intimated by the nurse is less in unplanned discharges i. e 37 minutes and its 44 minutes in case of planned discharges.

- *Reasons for delay*:

- Sometimes, it takes time to get clearance from pharmacy and lab as nurse puts consumption orders in HIS after the patients is announced for discharge.
- Sometimes, billing department take time to generate the bill as there is more number of discharges at a time.
- In one or two cases, there was technical problem in HIS.

6. ***TIME BETWEEN THE GENERATION OF THE BILL AND PAYMENT OF THE BILL***

Graph 6:



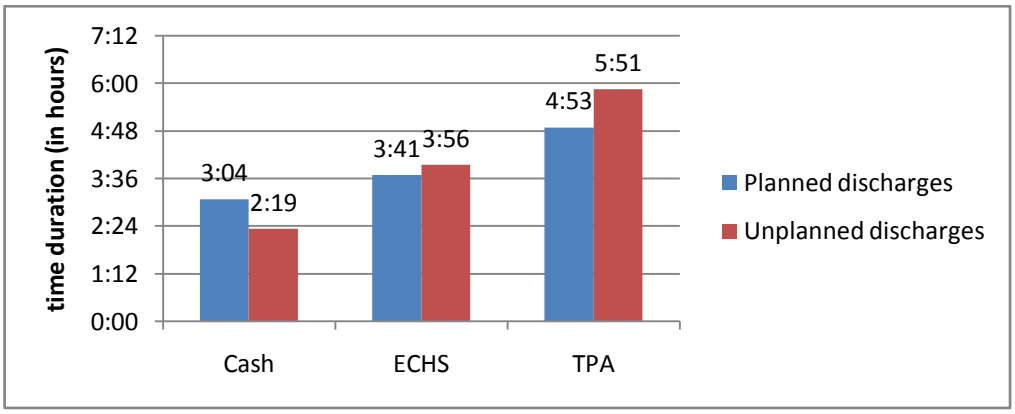
Inference:

Average time taken by the attendants to pay the bill after the bill is ready is more in case of planned discharges i.e. 92 minutes and unplanned discharges takes 58 minutes.

- *Reasons for delay:*
    - There is lack of communication between billing and nursing staff as billing staff do not call and inform the nurses about the generation of the bill and causes delay in payment of bill.
    - Sometimes, the patients and the attendants have their own personal issues which cause delay in the payment of bill. E.g.; arranging the cash, coming from long distance.
    - TPA is a long procedure so it takes time for clearance.

7. ***AVERAGE TIME TAKEN FOR THE WHOLE DISCHARGE PROCESS:***

Graph 7



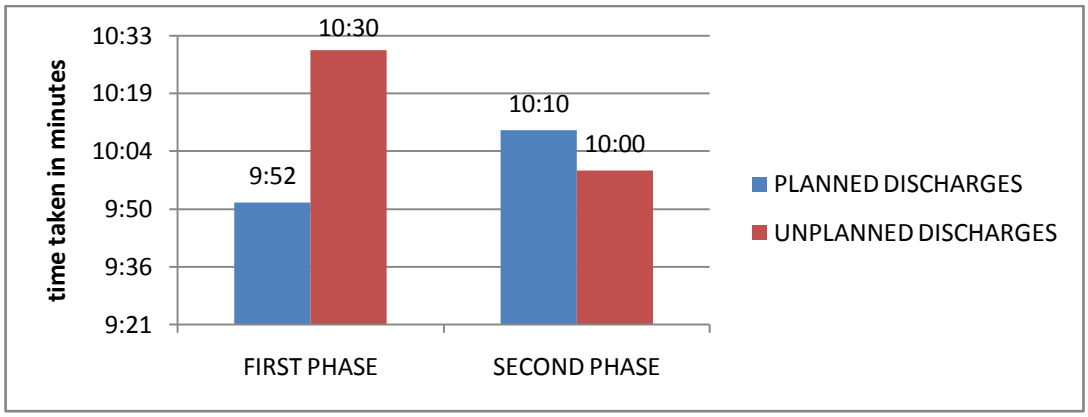
Inferences

- Average duration of discharge process in case of cash payment discharges is more in planned discharges which is 3 hours and its 2 hours 19 minutes in unplanned discharges.
- Average duration of discharge process for ECHS patients doesn't vary in both the cases and is 3 hrs 41 min in planned discharges whereas 3 hrs 56 min in unplanned discharges.
- TPA itself is long procedure so it takes 5 hrs 51 min in unplanned discharges and 4hrs 53 min in planned discharges.

Findings for the Second phase:

1. *TIME WHEN DOCTORS COMES FOR ROUNDS AND ANNOUNCES DISCHARGE:*

Graph 8 :

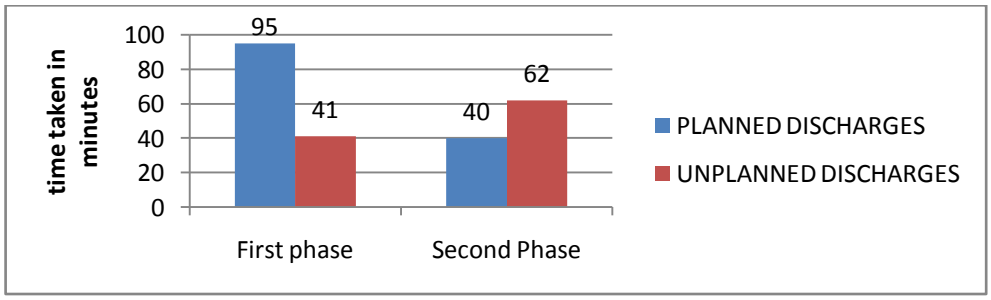


Inference:

The consultants has started to come for rounds early as average time according to the study has decreased from 10:30 to 10:00 am in case of unplanned discharges but in case of planned discharges it has increased from 9:52 to 10:10 am.

2. *TIME TAKEN TO COMPLETE THE SUMMARY:*

Graph 9:



Inference:

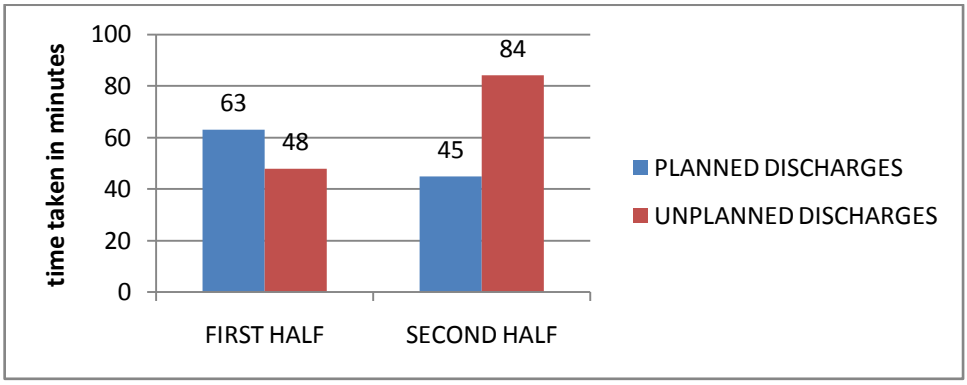
Average time taken for completing the summary for planned discharges has reduced from 95 minutes to 41 minutes whereas in case of unplanned discharges, it has increased from 41 to 62 minutes.

➢ *Findings:*

- RMOs and consultants has started making provisional summaries prior to discharge date but still had to wait for consultant signature known as the co sign.
- As number of planned discharges has increased but the summaries are still not full ready before the discharge date.
- It's a positive point that RMOs are focusing more on planned discharges.

3. ***TIME BETWEEN THE ANNOUNCEMENT OF DISCHARGE AND COMPLETION OF SUMMARY****:*

Graph 10



Inference:

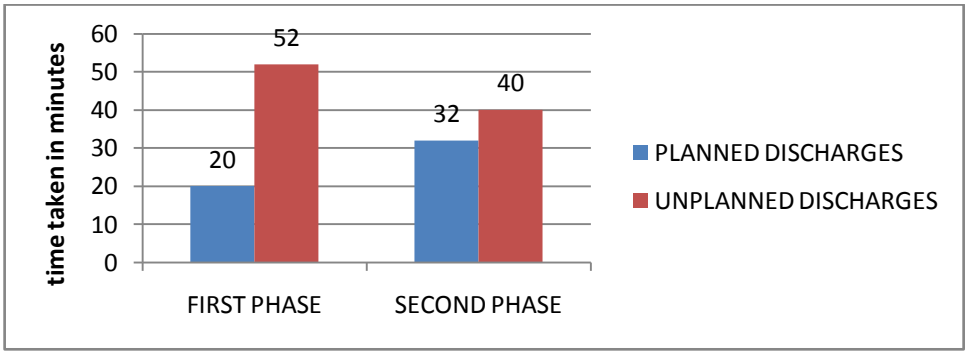
Average time between the announcement of discharge and completion of summary in planned discharges has reduced from 63 min to 45 minutes whereas in case of unplanned discharges, it has increased 48 min to 84 min.

➢ *Findings*:

Now, RMOs and consultants are focusing more on planned discharges.

4. ***TIME TAKEN FOR THE MEDICINE INDENT AND RECEIVEING OF MEDICATIONS*** :

Graph 11

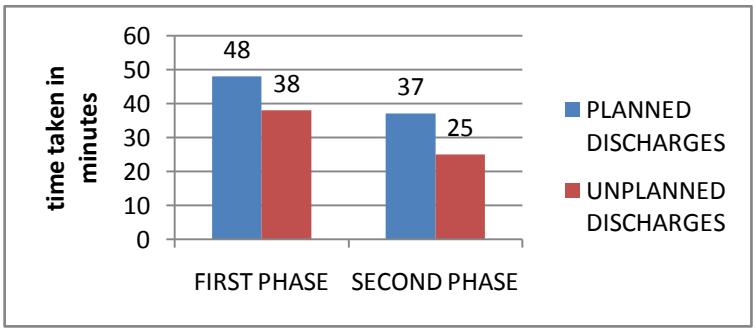


Inference:

The average time taken for receiving the indented discharge medications has reduced in unplanned discharges from 52 minutes to 40 minutes whereas it is taking more time in planned discharges i.e from 20 to 32 minutes.

5. ***TIME TAKEN FOR THE BILL INTIMATION AND GENERATION OF THE BILL***:

Graph 12:

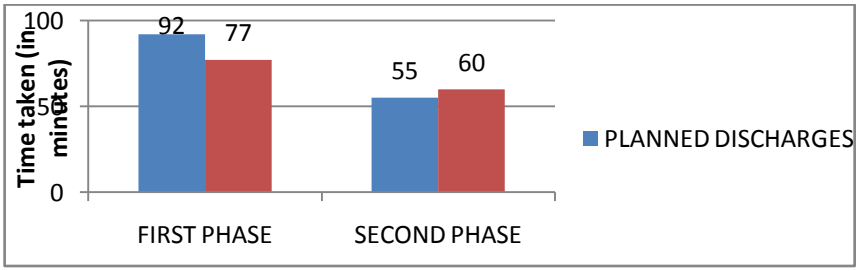


Inference:

Time taken by billing staff to generate the bill has reduced in both planned as well as unplanned discharges. In planned discharges, it has reduced from 48 to 37 minutes whereas in unplanned discharges it has drop to 25 minutes from 38 minutes.

6. ***TIME BETWEEN THE GENERATION OF THE BILL AND PAYMENT OF THE BILL*:**

Graph 13:



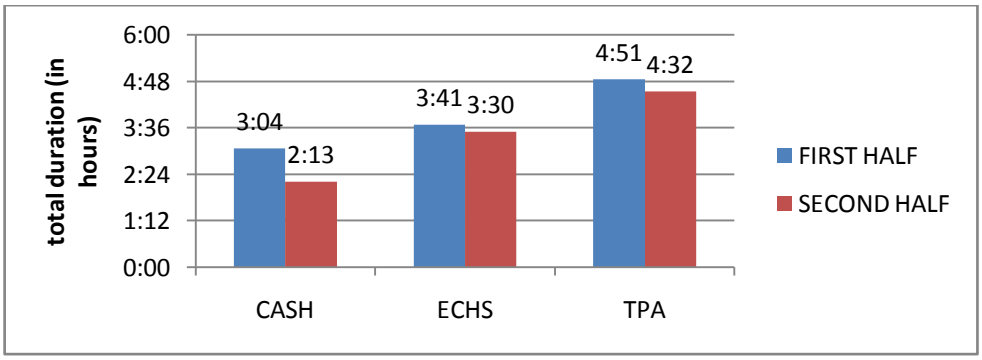
Inference:

Average time taken to pay the bill once it's been generated has reduced from 92 minutes to 55 minutes in case of planned discharges whereas it has been reduced from 77 minutes to 60 minutes in case of planned discharges.

7. AVERAGE DURATION OF DISCHARGE PROCESS:

(A)*PLANNED DISCHARGES*:

Graph 14 (a)

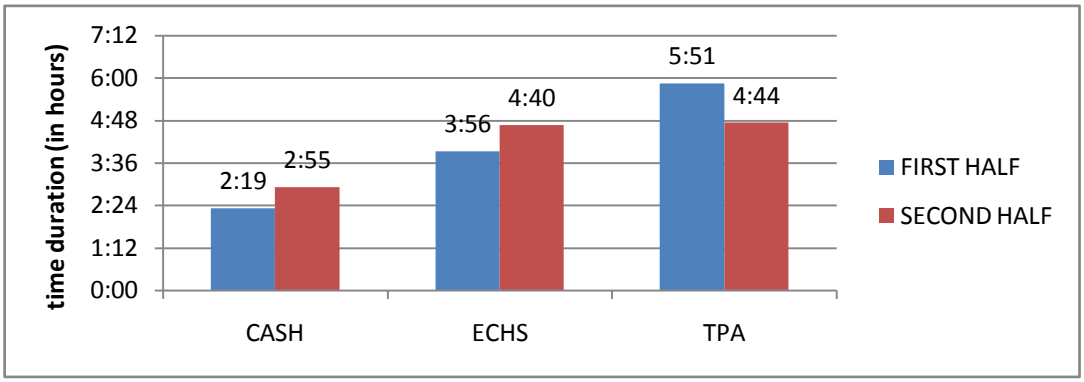


Inference:

- Average time duration for discharge process in case of cash payments has decreased from 3hrs to 2hrs 14 minutes.
- Average time duration of ECHS discharge process has shown reduction of 10 minutes i.e from 3 hrs 41minutes to 3 hrs 30 minutes.
- Average time duration of TPA discharge process has reduced from 4 hrs 51 min to 4 hrs 32 minutes.

(B)*UNPLANNED DISCHARGES*:

Graph 14 (b):



Inference:

- Discharge process in Cash payment is taking more time in second phase. It has increased from 2 hrs 19 min to 2 hrs 55 min.
- In ECHS discharge process, total duration has increased from 4 hrs to 4 hrs 40 min.
- In case of TPA discharges, the total duration has shown reduction from 5 hrs 51 min to 4 hrs 44 min.

RECOMMENDATIONS (For the first phase)

After the completion of first phase data collection and observing the bottlenecks, certain recommendations were made to improve the process which is as follows:

1. *TIME WHEN DOCTORS COMES FOR ROUNDS AND ANNOUNCES DISCHARGE:*
    - Consultants should come early for the rounds and should see the patients first who are going to discharge as consultant's intimations is the first step and rest all depends on it.
    - Number of planned discharges can be increased.
    - Consultant can intimates for the patients whose discharge is planned.

2. *TIME TAKEN TO COMPLETE THE SUMMARY*:
    - No. of planned discharges should be increased so that summaries can be made prior to discharge date.
    - Otherwise, provisional summaries should be ready before the discharge date and daily summaries should be updated so that it becomes easy for RMOs to complete the summary on the discharge day.
3. *TIME BETWEEN THE ANNOUNCEMENT OF DISCHARGE AND COMPLETION OF SUMMARY*
    - Consultant should intimates for the discharges as soon as they come and provisional summaries should be made before the discharge date.
4. *TIME TAKEN FOR THE MEDICINE INDENT AND RECEIVEING OF MEDICATIONS :*
    - Pharmacy should be more active in delivering the medications of discharged patients.
    - Nurses should intimate for medications as soon as the summary is prepared or doctor tells about the discharge medications.
5. *TIME TAKEN FOR THE BILL INTIMATION AND GENERATION OF THE BILL*:
    - Nurses should enter the charges for the medications and investigations at the time and point of consumption.
    - Billing department should be more active to generate the bill.
6. *TIME BETWEEN THE GENERATION OF THE BILL AND PAYMENT OF THE BILL:*
    - Billing staff should call the concerned nurse as soon as bill gets generated.

RECOMMENDATIONS (for the second phase)

- Discharge planning should be initiated as soon as patient gets admitted to the hospital.
- Effective and timely discharge can only be attained by interdepartmental coordination and proper communication between all the team members involved in discharge process.
- Doctors should be advised to prepare the discharge summaries prior to the discharge date.
- Night duty RMO s should be informed about the next day discharges and should prepare the provisional summaries.
- Proper CPRS training to RMOs and HIS training to nurses should be given.
- Nursing team leader should be given the permission to intimate for the patient discharge in HIS if the concerned nurse is busy with her patients.
- Cake cuttings which lead to delay in discharge process of delivery cases can be done one day prior to discharge date.
- Update the patient assessment daily.
- Charges for the medications and investigations can be entered at the time and point of consumption and generate up-to-date interim bills and minimize billing errors.
- Return discontinued medications daily in the wards.
- Send an automatic SMS to patients and families when the bill is generated.

CONCLUSION

The aim of the hospital is to improve the quality of discharge process because an improvement in discharge process can increase patient satisfaction immensely as discharge is one of the most common reasons for dissatisfaction in the In–patients. Therefore, the timing of each step involved in discharge process was measured so that delays can be detected easily and the discharge process can be optimized.

The final outcome has shown that the time duration for planned cash payment discharges has reduced but unplanned discharges are still at the same level. It has also observed that the number of unplanned discharges has reduced .The major reasons for delays were delay in discharge summary by doctors and consultants and lack of interdepartmental communication. The aim should be to reduce the number of unplanned discharges as well if any unplanned discharge is occurring, it should also be taken seriously. Long time taken for discharge process leads to unnecessary bed occupancy, this affects both, the existing patients to be discharged and the new admissions in the hospital.

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ANNEXURE

The data for the observation and the timings of the TAT were collected in excel sheet and hence the analysis done. The excel sheet was divided into various categories:

- Planned discharges for the first phase;
- Unplanned discharges for the first phase;
- Planned discharges for the second phase;
- Unplanned discharges for the second phase.

A) UNPLANNED DISCHARGES

S.No	NAME OF THE PATIENT	MODE OF PAYMENT	NAME OF THE CONSULTANT	TIME AT WHICH CONSULTANT ANNOUNCES DISCHARGE	SUMMARY START TIME	SUMMARY END TIME
1	Kishori Lal	ECHS	Dr. G. P. Malik	11:10	11:10	11:47
2	Usha Rani	Cash	Dr. Raghav Saini	11:40	11:40	11:40
3	Rama Devi	ECHS	Dr. Vikas Mehra	11:45	11:45	11:45
4	Narjeet	Cash	Dr. M. S. Bedi	10:00	10:00	11:15
5	Vibha Gupta	ECHS	Dr. Nitin Yogesh	10:30	10:30	11:15
6	Shashi Banot	Cash	Dr. Sunandan Sharma	10:25	10:25	10:53
7	Ramesh Kattaria	Cash	Dr. Anurag Sharma	16:30	16:30	17:00
8	Navdeep Kaler	Cash	Dr. Harinder S Bath	10:10	10:30	11:05
9	Gurcharan Singh	Cash	Dr. Deepak Gupta	10:00	10:05	10:30
10	Nathu Ram Garg	Cash	Dr. Munish Chauhan	10:05	10:20	11:12
11	Bhupinder Kaur	ECHS	Dr. Sachin Gupta	09:50	09:55	10:00
12	Pavani Devi	ECHS	Dr. Sachin Gupta	10:00	10:00	10:30
14	Kaushalaya Devi	Cash	Dr. Amit Gupta	10:43	10:43	10:53
15	Mool krishan Aggarwal	Cash	Dr. Anurag Sharma	10:05	10:10	10:30
16	Surjan Singh	Cash	Dr. Deepak Bhasin	09:45	09:52	10:05
17	Aseem Chadda	Cash	Dr. Vikas Mehra	11:55	11:58	12:20
18	Surinder Kaur	Cash	Dr. Sachin Gupta	12:00	12:00	13:00
19	Kishore Chand	ECHS	Dr. Sachin Gupta	14:00	14:00	14:20
20	IqbalSingh	Cash	Dr. Anurag Sharma	14:00	14:00	14:20
21	Balwant Singh	ECHS	Dr. Sachin Gupta	09:30	10:00	11:20
22	Jaipal Singh	Cash	Dr. Sachin Gupta	09:40	10:10	11:16
23	Surjit S Mann	Cash	Dr. Gaurav Diddi	10:00	10:10	10:20
24	Adda Sharma	TPA	Dr. Arpinder Singh Gill	10:30	10:30	10:57
25	Surjit Kaur	Cash	Dr. Sachin Gupta	10:30	11:00	12:37
26	Naib Singh	ECHS	Dr. Amit Gupta	10:30	10:35	11:08
27	Prem Kedia	TPA	Dr. Sachin Gupta	09:40	10:15	12:15
28	Harbir Singh	ECHS	Dr. Sachin Gupta	10:10	10:15	10:39
29	Kirpal Singh	Cash	Dr. Gaurav Diddi	10:00	09:45	10:01
30	Amarnath	ECHS	Dr. Sachin Gupta	10:15	10:40	13:07
31	Hazara Ram	ECHS	Dr. Sachin Gupta	10:20	10:40	12:50
32	Surjit Kaur	Cash	Dr. Sachin Pandove	11:00	11:00	11:45
33	Kamlesh Kumari	ECHS	Dr. Raghav Saini	10:50	10:43	10:53
34	Gurleen	TPA	Dr. Sachin Pandove	11:10	11:45	12:56
35	Kailash Rani	Cash	Dr. Sunandan Sharma	11:50	11:50	11:50
36	Aseem Chadda	Cash	Dr. Vikas Mehra	11:50	11:50	12:21

TIME TAKEN FOR RETURN OF MEDICATIONS BY NURSE	TIME AT WHICH NURSE INDENTS MEDICATIONS	TIME AT WHICH NURSE RECEIVES MEDICATIONS FROM PHARMACY	TIME AT WHICH BILL IS INTIMATED	TIME AT WHICH BILL IS GENERATED	TIME AT WHICH PAYMENT OF BILL DONE	TOTAL TIME
	11:15	11:40	11:52	12:15	13:21	02:11
12:30			12:42	13:30	14:00	02:20
	12:10	12:30	12:45	13:12	15:00	03:15
10:20			11:26	13:30	13:50	03:50
	10:35	11:48	11:50	13:30	14:00	03:30
N/A			10:30	10:53	11:46	01:21
17:05			17:05	17:18	17:30	01:00
10:45			11:12	11:50	12:54	02:44
N/A			10:24	11:15	12:00	02:00
10:25			11:14	11:50	12:05	02:00
	10:50	12:40	12:45	14:30	14:45	04:55
	10:45	11:20	11:18	12:34	14:00	04:00
N/A			11:18	11:50	12:10	01:27
10:44			11:19	12:00	12:49	02:44
09:48			11:10	11:50	12:03	02:18
N/A			12:15	13:15	13:45	01:50
N/A			13:13	13:38	13:46	01:46
	14:00	14:20	14:30	15:30	16:31	02:31
14:20			14:08	14:30	16:01	02:01
	11:20	12:00	12:38	12:48	14:57	05:27
N/A			10:42	11:09	13:22	03:42
N/A			10:04	10:30	10:58	00:58
N/A			11:15	11:36	17:38	07:08
N/A			12:40	13:35	16:05	05:35
	12:00	13:00	13:31	13:58	15:26	04:56
10:02			11:43	11:51	17:51	08:11
	10:46	11:50	11:53	12:08	12:40	02:30
10:59			11:40	11:51	15:17	05:17
	13:20	14:50	14:01	14:38	15:33	05:18
	13:10	13:56	14:02	14:44	15:51	05:31
11:05			11:11	11:36	12:09	01:09
11:01	11:01	11:45	12:54	13:20	13:59	03:09
N/A			12:21	12:33	13:26	02:16
12:02			12:04	12:38	13:36	01:46
11:55			11:58	12:04	12:39	00:49

REMARKS	SUMMARY TIME	TIME BETWEEN CONSULTANT ORDERS AND COMPLETING THE SUMMARY	TIME TAKEN FOR INDENTING THE DISCHARGE MEDICATIONS AND RECEIVING OF MEDICATIONS	TIME BETWEEN INTIMATION OF BILL AND GENERATION OF BILL	TIME BETWEEN BILL GENERATION AND PAYMENT OF BILL
	00:37	00:37	00:25	00:23	01:06
	00:00	00:00	00:00	00:48	00:30
	00:00	00:00	00:20	00:27	01:48
	01:15	01:15	00:00	02:04	00:20
	00:45	00:45	01:13	01:40	00:30
	00:28	00:28	00:00	00:23	00:53
	00:30	00:30	00:00	00:13	00:12
	00:35	00:55	00:00	00:38	01:04
	00:25	00:30	00:00	00:51	00:45
delay in summary completion beacause endoscopic notes were pending	00:52	01:07	00:00	00:36	00:15
	00:05	00:10	01:50	01:45	00:15
	00:30	00:30	00:35	01:16	01:26
	00:10	00:10	00:00	00:32	00:20
	00:20	00:25	00:00	00:41	00:49
	00:13	00:20	00:00	00:40	00:13
	00:22	00:25	00:00	01:00	00:30
	01:00	01:00	00:00	00:25	00:08
	00:20	00:20	00:20	01:00	01:01
	00:20	00:20	00:00	00:22	01:31
waiting for cosign on the summary	01:20	01:50	00:40	00:10	02:09
	01:06	01:36	00:00	00:27	02:13
	00:10	00:20	00:00	00:26	00:28
	00:27	00:27	00:00	00:21	06:02
	01:37	02:07	00:00	00:55	02:30
	00:33	00:38	01:00	00:27	01:28
	02:00	02:35	00:00	00:08	06:00
	00:24	00:29	01:04	00:15	00:32
	00:16	00:01	00:00	00:11	03:26
	02:27	02:52	01:30	00:37	00:55
	02:10	02:30	00:46	00:42	01:07
wrong indent for the medicine done by nurse	00:45	00:45	00:00	00:25	00:33
	00:10	00:03	00:44	00:26	00:39
	01:11	01:46	00:00	00:12	00:53
	00:00	00:00	00:00	00:34	00:58
	00:31	00:31	00:00	00:06	00:35

B) UNPLANNED DISCHARGES AFTER IMPROVEMENT:

S.No	NAME OF THE PATIENT	MODE OF PAYMENT	NAME OF THE CONSULTANT	TIME AT WHICH CONSULTANT ANNOUNCES DISCHARGE	SUMMARY START TIME	SUMMARY END TIME
37	V.P. Chaturvedi	Cash	Dr. Sananda Bag	09:30	09:30	11:17
38	Raj Kumar	Cash	Dr. Swapnil	09:30	11:08	11:49
39	S.K. Sharma	ECHS	Dr. Swapnil	09:30	11:41	12:16
40	Kanta Baga	Cash	Dr. Swapnil	09:30	10:00	11:17
41	Sangeeta Gulati	Cash	Dr. Seema Sharma	10:00	10:10	11:40
42	Sohan Lal	Cash	Dr. Munish Chauhan	10:00	10:20	11:14
43	Mohan Singh	ECHS	Dr. Sachin Gupta	10:20	10:30	10:58
44	Laxmi Rani	TPA	Dr. Preeti Jindal	08:00	10:00	11:000
45	Sukhjinder Kaur	Cash	Dr. Harinder S Bath	09:50	09:50	10:30
46	Jaspal Kaur	Cash	Dr. Deepak Gupta	10:15	10:15	10:50
47	Rajwinder Kaur	Cash	Dr. Seema Sharma	10:45	10:50	11:30
48	Kanwaljeet Kaur	Corporate	Dr. R. S. Rai	09:00	09:00	09:10
49	Ihan Sandhu	Cash	Dr. Arpinder Singh Gill	10:10	10:10	12:27
50	Hari Singh	Cash	Dr. Emmy Grewal	10:15	10:15	11:22
51	Naseeb Singh	Cash	Dr. Sachin Gupta	09:30	11:00	13:54
52	Mohan Singh	ECHS	Dr. Sachin Gupta	10:00	10:00	11:00
53	Satish Kumar Sharma	Cash	Dr. R. S. Rai	10:00	N/A	N/A
54	Ritesh Rana	TPA	Dr. Renu Aggrawal	12:00	11:50	12:01
55	Baljeet Kaur	ECHS	Dr. Sachin Gupta	09:30	10:00	12:46
56	Ronki Ram	ECHS	Dr. Sachin Gupta	09:57	10:10	12:51
57	Ashok Sood	Cash	Dr. Emmy Grewal	14:00	14:00	14:53
58	Rosy Sharma	TPA	Dr. G.P. Malik	11:19	11:19	11:24
59	Jatinder Kumar	Cash	Dr. Nikhil	14:00	14:00	14:18
60	Usha Sharma	Cash	Dr. Deepak Gupta	10:05	10:05	10:57
61	Prem Lata	ECHS	Dr. Sachin Gupta	11:00	N/A	N/A
62	Vijay Gupta	TPA	Dr. Vikas Mehra	10:30	10:30	10:57
63	Saisparsh	TPA	Dr. Vikas Mehra	14:30	14:30	15:12
64	Devindar Kumar	ECHS	Dr. Sachin Gupta	09:40	10:00	11:00
65	Mohan Singh	ECHS	Dr. Sachin Gupta	09:30	10:00	10:45

TIME AT WHICH NURSE INDENTS MEDICATIONS	TIME AT WHICH NURSE RECEIVES MEDICATIONS FROM PHARMACY	TIME AT WHICH BILL IS INTIMATED	TIME AT WHICH BILL IS GENERATED	TIME AT WHICH PAYMENT OF BILL DONE	TOTAL TIME
		11:42	11:55	12:06	02:36
		10:21	10:37	11:08	01:38
12:15	12:57	01:10	01:25	13:34	04:04
		11:20	11:23	11:34	02:04
		11:35	11:50	12:11	02:11
		11:31	11:54	13:11	03:11
11:00	11:26	11:33	11:48	15:10	04:50
		11:05	11:24	13:58	05:58
		10:41	11:15	12:00	02:10
		10:32	10:51	11:10	00:55
		15:16	15:28	16:10	05:25
09:10	09:30	09:30	09:40	09:58	00:58
		17:20	17:27	18:53	08:43
		11:36	11:51	12:02	01:47
		13:19	13:36	13:49	04:19
11:00	11:30	11:33	11:48	15:10	05:10
		11:56	12:24	12:55	02:55
		12:12	12:36	14:30	02:30
13:00	13:55	15:31	16:43	17:02	07:32
13:00	13:58	15:30	15:36	15:55	05:58
		14:05	14:42	16:15	02:15
		11:32	12:48	16:53	05:34
		15:00	15:30	15:47	01:47
		10:12	11:22	12:02	01:57
12:00	12:50	13:50	14:05	15:34	04:34
		11:41	11:58	18:10	07:40
		15:15	15:45	16:30	02:00
11:06	11:35	11:30	12:00	12:27	02:47
10:30	11:01	11:00	11:45	12:02	02:32

REMARKS	SUMMARY TIME	TIME BETWEEN CONSULTANT ORDERS AND COMPLETING THE SUMMARY	TIME TAKEN FOR INDENTING THE DISCHARGE MEDICATIONS AND RECEIVING OF MEDICATIONS	TIME BETWEEN INTIMATION OF BILL AND GENERATION OF BILL	TIME BETWEEN BILL GENERATION AND PAYMENT OF BILL
	01:47	01:47	00:00	00:13	00:11
	00:41	02:19	00:00	00:16	00:31
	00:35	02:46	00:42	00:15	12:09
	01:17	01:47	00:00	00:03	00:11
	01:30	01:40	00:00	00:15	00:21
	00:54	01:14	00:00	00:23	01:17
	00:28	00:38	00:26	00:15	03:22
	01:00	03:00	00:00	00:19	02:34
	00:40	00:40	00:00	00:34	00:45
	00:35	00:35	00:00	00:19	00:19
	00:40	00:45	00:00	00:12	00:42
	00:10	00:10	00:20	00:10	00:18
patient has to take injections till 5 pm as said by the consultant	02:17	02:17	00:00	00:07	01:26
	01:07	01:07	00:00	00:15	00:11
	02:54	04:24	00:00	00:17	00:13
	01:00	01:00	00:30	00:15	03:22
	N/A	N/A	00:00	00:28	00:31
	00:11	00:01	00:00	00:24	01:54
	02:46	03:16	00:55	01:12	00:19
	02:41	02:54	00:58	00:06	00:19
	00:53	00:53	00:00	00:37	01:33
	00:05	00:05	00:00	01:16	04:05
	00:18	00:18	00:00	00:30	00:17
	00:52	00:52	00:00	01:10	00:40
	N/A	N/A	00:50	00:15	01:29
	00:27	00:27	00:00	00:17	06:12
	00:42	00:42	00:00	00:30	00:45
	01:00	01:20	00:29	00:30	00:27
	00:45	01:15	00:31	00:45	00:17

C) PLANNED DISCHARGES:

S.NO	NAME OF THE PATIENT	MODE OF PAYMENT	NAME OF THE CONSULTANT	TIME AT WHICH CONSULTANT ANNOUNCES DISCHARGE	SUMMARY START TIME
1	Seeta Rani	Cash	Dr. Raghav Saini	10:42	N/A
2	Zareen Sharma	Cash	Dr. G. P. Malik	N/A	N/A
3	Shashi Kiran	Cash	Dr. Preeti Jindal	09:55	N/A
4	Gurleen Sharma	TPA	Dr. Deepak Bhasin	N/A	N/A
5	Sangita Kapur	Cash	Dr. Sumit Khetrapal	N/A	N/A
6	Mohan Lal	ECHS	Dr. Sachin Gupta	10:00	10:00
7	Neeta sharma	Cash	Dr. Sunandan Sharma	10:15	10:30
8	Inderjit singh	Cash	Dr. Sachin Gupta	10:10	10:26
9	Gian Chand	ECHS	Dr. Sachin Gupta	N/A	N/A
10	Kamla	ECHS	Dr. Sachin Gupta	10:05	10:15
11	Manpreet Kaur	Cash	Dr. Preeti Jindal	09:50	
12	Baljeet Singh	ECHS	Dr. Sumit Khetrapal	12:20	12:23
13	Ritika sharma	Cash	Dr. Seema Sharma	07:00	N/A
14	Pallavi Mehta	TPA	Dr. Preeti Jindal	10:00	10:08
15	Charanjeet Singh	TPA	Dr. Sananda Bag	N/A	N/A
16	Saroj	TPA	Dr. Sachin Gupta	09:30	09:45
17	Pooja	Cash	Dr. Seema Sharma	N/A	N/A
18	Arti	Cash	Dr. Seema Sharma	N/A	N/A
19	Anita Mehta	ECHS	Dr. Vikas Mehra	N/A	10:30
20	Jagdish Chand	ECHS	Dr. Sunandan Sharma	N/A	N/A
21	Raghbir singh	ECHS	Dr. Sunandan Sharma	09:00	N/A
22	Manu Bajaj	TPA	Dr. Sachin Gupta	09:40	N/A
23	Tayag Raj	TPA	Dr. M. S. Bedi	09:10	N/A
24	Paira Singh	ECHS	Dr. Raghav Saini	10:20	10:10
25	Hardeep Kaur	Cash	Dr. Ghambir	09:50	09:51
26	Champa Devi	ECHS	Dr. Sachin Gupta	10:40	11:00
27	Prem Lata	ECHS	Dr. Sachin Pandove	10:20	10:20
28	Jagatamba devi	ECHS	Dr. Raghav Saini	09:00	09:30
29	Summy Sharma	TPA	Dr. Arpinder singh Gill	10:04	N/A
30	Swaran Kaur	ECHS	Dr. Sudheer Saxena	N/A	N/A
31	Anchal	ECHS	Dr. Preeti Jindal	09:49	N/A
32	Sikander Singh	TPA	Dr. R. S. Rai	09:30	N/A
33	Surinder Kaur	Cash	Dr. M. S. Bedi	09:20	N/A
34	Vijay Kumar Arora	Cash	Dr. N. M. Gupta	09:30	N/A

SUMMARY END TIME	TIME TAKEN FOR RETURN OF MEDICATIONS BY NURSE	TIME AT WHICH NURSE INDENTS MEDICATIONS	TIME AT WHICH NURSE RECIEVES MEDICATIONS FROM PHARMACY	TIME AT WHICH BILL IS INTIMATED	TIME AT WHICH BILL IS GENERATED	TIME AT WHICH PAYMENT OF BILL DONE
N/A				11:44	12:00	12:49
N/A				10:35	11:00	13:19
N/A				09:57	10:10	11:48
N/A				10:29	11:08	15:14
N/A				10:54	11:15	13:25
10:15	12:04			15:21	16:00	18:00
12:30				12:40	14:18	14:35
11:15				11:31	12:30	13:54
N/A				08:18	09:50	10:24
10:45		10:48	11:17	11:30	13:00	13:30
11:30				11:48	13:00	14:02
13:08		13:12	13:37	13:45	15:00	15:33
N/A				10:05	10:30	10:51
11:02				11:02	13:00	16:00
N/A				10:45	12:00	14:50
10:45	10:15			09:58	10:21	18:06
N/A				10:48	11:06	19:33
N/A				12:43	12:59	13:57
10:54				09:58	10:21	12:15
N/A				08:43	10:28	10:45
N/A		09:47	10:33	10:42	12:37	13:11
N/A				10:04	10:33	12:42
N/A				09:43	10:06	15:46
11:00		N/A	N/A	10:28	10:43	14:41
10:00	N/A			10:50	12:27	13:05
12:34		12:50	13:40	14:00	14:26	14:56
11:00		11:05	12:00	11:28	11:36	14:30
10:20		10:50	12:15	11:02	11:30	13:22
N/A	N/A			10:21	10:42	13:50
N/A		N/A	N/A	11:11	11:39	11:41
N/A		N/A	N/A	10:33	11:26	14:50
N/A	N/A			09:30	09:40	11:45
N/A	N/A			09:33	09:42	09:52
N/A	N/A			09:32	09:43	10:26

TOTAT TIME	REMARKS	SUMMARY TIME	TIME TAKEN B/W THE ANNOUNCEMENT OF DISCHARGE AND COMPLETION OF SUMMARY	TIME TAKEN FOR INDENTING AND RECEIVING THE DISCHARGE MEDICATIONS	TIME TAKEN FOR BILL INTIMATION AND GENERATION OF BILL	TIME BETWEEN GENERATION OF BILL AND PAYMENT OF BILL
02:07		N/A	N/A	00:00	00:16	00:49
02:44	miss communication between the billing and nursing staff	N/A	N/A	00:00	00:25	02:19
01:53		N/A	N/A	00:00	00:13	01:38
04:45	TPA procedure	N/A	N/A	00:00	00:39	04:06
02:31		N/A	N/A	00:00	00:21	02:10
08:00	delay due to incomplete investigation reports	00:15	00:15	00:00	00:39	02:00
04:20	summary not signed on time	02:00	02:15	00:00	01:38	00:17
03:44	Summary was not ready	00:49	01:05	00:00	00:59	01:24
02:06		N/A	N/A	00:00	01:32	00:34
03:25		00:30	00:40	00:29	01:30	00:30
04:12	delayed due to cosign by the consultant doc on discharge summary	11:30	01:40	00:00	01:12	01:02
03:13		00:45	00:48	00:25	01:15	00:33
03:51		N/A	N/A	00:00	00:25	00:21
06:00	delayed due to cosign by the consultant doc on discharge summary and attendants took time to reach the hospital	00:54	01:02	00:00	01:58	03:00
04:05		N/A	N/A	00:00	01:15	02:50
08:36	file returned backl because discharge summary was not attached	01:00	01:15	00:00	00:23	07:45
08:45	doc checked investigation reports	N/A	N/A	00:00	00:18	08:27
01:14	miss communication between billing and nursing staff	N/A	N/A	00:00	00:16	00:58
02:17	summary not signed	00:24	N/A	00:00	00:23	01:54
02:02		N/A	N/A	00:00	01:45	00:17
04:11		N/A	N/A	00:46	01:55	00:34
03:02		N/A	N/A	00:00	00:29	02:09
06:36		N/A	N/A	00:00	00:23	05:40
04:21		00:50	00:40	N/A	00:15	03:58

03:15		00:09	00:10	00:00	01:37	00:38
04:16		01:34	01:54	00:50	00:26	00:30
04:10		00:40	00:40	00:55	00:08	02:54
04:22		00:50	01:20	01:25	00:28	01:52
03:46		N/A	N/A	00:00	00:21	03:08
00:30		N/A	N/A	N/A	00:28	00:02
05:01	delay due to cake cutting	N/A	N/A	N/A	00:53	03:24
02:15		N/A	N/A	00:00	00:10	02:05
00:32		N/A	N/A	00:00	00:09	00:10
00:56		N/A	N/A	00:00	00:11	00:43

D) PLANNED DISCHARGES AFTER IMPROVEMENT:

S.NO	NAME OF THE PATIENT	MODE OF PAYMENT	NAME OF THE CONSULTANT	TIME AT WHICH CONSULTANT ANNOUNCES DISCHARGE
36	Hardeep Kaur	Cash	Dr. Sunandan Sharma	N/A
39	N.S. Raza	Cash	Dr. Raghav Saini	10:40
40	Neelam Saini	Cash	Dr. Kanwarjit singh Dhillon	09:20
43	Surinder Kaur	Cash	Dr. Sachin Gupta	10:15
48	Simro Bhatnagar	Cash	Dr. Praveen K. T	08:00
50	Jaspreet singh	Cash	Dr. Prakash Kumar	10:00
61	Dr. Richa Goel	Cash	Dr. Preeti Jindal	10:40
66	Kulwinder Cheema	Cash	Dr. Kanwarjit singh Dhillon	N/A
67	Harbans Sandhu	Cash	Dr. Kanwarjit singh Dhillon	10:41
72	Gurjit singh	Cash	Dr. Sachin Pandove	10:10
73	Harman D Singh	Cash	Dr. Seema Sharma	09:00
75	Satya Devi	Cash	Dr. Nitin Yogesh	11:08
78	Tek Singh	Cash	Dr. Sachin Gupta	09:54
79	Jaspal Kaur	Cash	Dr. Kanwarjit singh Dhillon	N/A
81	Chiring Mutup	ECHS	Dr. Sachin Gupta	11:30
82	Jalwinder Kaur	Cash	Dr. Ritambhra bhalla	N/A
84	Harnek Singh	Cash	Dr. M. S. Bedi	10:30
85	Kusum Lata	Cash	Dr. Kanwarjit singh Dhillon	08:00
87	Snehill Budakole	Cash	Dr. M. S. Bedi	10:00
91	Gurmeet Kaur	Cash	Dr. Raghav Saini	08:00
94	Seema Chauhan	Cash	Dr. Preeti Jindal	08:00
95	Ripudaman	Cash	Dr. Seema Sharma	08:00
98	Navya Kohli	Cash	Dr. Arpinder singh Gill	10:50

101	Surinder Kaur	Cash	Dr. Seema Sharma	N/A
103	Jiwan Tara	Cash	Dr. Preeti Jindal	N/A
105	Shashi Singla	Cash	Dr. Preeti Jindal	N/A
108	Sonia Gupta	Cash	Dr. Seema Sharma	N/A
109	Vipla Aneja	Cash	Dr. Vikas Mehra	N/A
114	Suman Soni	Cash	Dr. Gaurav Diddi	N/A
117	Sania	Cash	Dr. Preeti Jindal	09:30
121	Ashish Gupta	TPA	Dr. Nitin Yogesh	09:30
122	Sharanbir Kaur	TPA	Dr. N. M. Gupta	09:25
123	Ankush Mahajan	TPA	Dr. Kanwarjit singh Dhillon	10:00
124	Damanjit Kaur	TPA	Dr. M. S. Bedi	10:00
126	Atul Malhotra	TPA	Dr. Kanwarjit singh Dhillon	10:05
127	Nishant Mittal	TPA	Dr. R. S. Rai	14:00
131	Nidhi	TPA	Dr. Kanwarjit singh Dhillon	09:00
131	Vijay Kumar	TPA	Dr. Sananda Bag	10:10
132	Anoushka Diwan	TPA	Dr. Arpinder singh Gill	N/A

SUMMARY START TIME	SUMMARY END TIME	TIME TAKEN FOR RETURN OF MEDICATIONS BY NURSE	TIME AT WHICH NURSE INDENTS MEDICATIONS	TIME AT WHICH NURSE RECIEVES MEDICATIONS FROM PHARMACY
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	10:22		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A			
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A	11:30	12:00
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		

N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A			
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	09:25		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
N/A	N/A	N/A		
10:10	10:42	N/A		
N/A	N/A	N/A		

TIME AT WHICH BILL IS INTIMATED	TIME AT WHICH BILL IS GENERATED	TIME AT WHICH PAYMENT OF BILL DONE	TOTAT TIME	REMARKS	SUMMARY TIME
09:02	09:25	10:17	01:15		N/A
11:06	11:42	12:46	02:06		N/A
08:00	09:34	11:38	02:18		N/A
10:22	10:37	10:57	00:42		N/A
08:26	09:24	09:58	01:58		N/A
10:26	10:41	11:06	01:06		N/A
11:10	11:36	13:33	02:53		N/A
10:24	10:56	11:25	01:01		N/A
10:41	11:36	13:16	02:35		N/A
11:09	11:16	12:15	02:05		N/A
08:16	09:25	11:13	02:13		N/A
11:37	11:55	12:50	01:42		N/A
09:56	10:09	10:57	01:03		N/A
08:27	09:39	09:46	01:19		N/A
12:14	12:42	15:10	03:40		N/A
10:00	10:58	13:16	03:16		N/A

11:36	13:07	13:09	02:39		N/A
08:19	09:43	09:45	01:45		N/A
11:28	11:41	12:11	02:11		N/A
09:34	10:02	10:56	02:56		N/A
08:12	09:18	09:32	01:32		N/A
08:43	10:17	11:29	03:29		N/A
10:57	11:21	15:31	04:41		N/A
08:00	09:59	12:57	04:57		N/A
07:48	09:15	10:06	02:18		N/A
10:54	11:07	13:26	02:32		N/A
11:36	11:45	13:39	02:03		N/A
08:47	09:57	12:20	03:33		N/A
08:00	09:20	09:45	01:45		N/A
09:45	10:10	10:45	01:15		N/A
09:18	10:08	12:39	03:09		N/A
09:34	09:57	15:06	05:41		N/A
10:32	10:50	15:55	05:55		N/A
09:04	09:41	11:31	01:31		N/A
10:41	11:07	14:25	04:20		N/A
14:30	15:05	17:58	03:58		N/A
09:01	09:56	12:35	03:35		N/A
10:30	10:48	14:10	04:00		N/A
09:20	10:00	14:01	04:41		N/A

TIME TAKEN B/W THE ANNOUNCEMENT OF DISCHARGE AND COMPLETION OF SUMMARY	TIME TAKEN FOR INDENTING AND RECEIVING THE DISCHARGE MEDICATIONS	TIME TAKEN FOR BILL INTIMATION AND GENERATION OF BILL	TIME BETWEEN GENERATION OF BILL AND PAYMENT OF BILL	TIME TAKEN BY THE NURSES
N/A	00:00	00:23	00:52	N/A
N/A	00:00	00:36	01:04	00:26
N/A	00:00	01:34	02:04	N/A
N/A	00:00	00:15	00:20	00:07
N/A	00:00	00:58	00:34	00:26
N/A	00:00	00:15	00:25	00:26
N/A	00:00	00:26	01:57	00:30
N/A	00:00	00:32	00:29	N/A
N/A	00:00	00:55	01:40	00:00
N/A	00:00	00:07	00:59	00:59
N/A	00:00	01:09	01:48	N/A

N/A	00:00	00:18	00:55	00:29
N/A	00:00	00:13	00:48	00:02
N/A	00:00	01:12	00:07	N/A
N/A	00:30	00:28	02:28	00:44
N/A	00:00	00:58	02:18	N/A
N/A	00:00	01:31	00:02	01:06
N/A	00:00	01:24	00:02	00:19
N/A	00:00	00:13	00:30	01:28
N/A	00:00	00:28	00:54	01:34
N/A	00:00	01:06	00:14	00:12
N/A	00:00	01:34	01:12	00:43
N/A	00:00	00:24	04:10	00:07
N/A	00:00	01:59	02:58	N/A
N/A	00:00	01:27	00:51	N/A
N/A	00:00	00:13	02:19	N/A
N/A	00:00	00:09	01:54	N/A
N/A	00:00	01:10	02:23	N/A
N/A	00:00	01:20	00:25	N/A
N/A	00:00	00:25	00:35	00:15
N/A	00:00	00:50	02:31	N/A
N/A	00:00	00:23	05:09	00:09
N/A	00:00	00:18	05:05	00:32
N/A	00:00	00:37	01:50	N/A
N/A	00:00	00:26	03:18	00:36
N/A	00:00	00:35	02:53	00:30
N/A	00:00	00:55	02:39	00:01
00:32	00:00	00:18	03:22	00:20
N/A	00:00	00:40	04:01	N/A

TIME TAKEN BY THE BILLING DEPARTMENT
01:15
01:40
03:38
00:35
01:32
00:40
02:23
01:01
02:35

01:06
02:57
01:13
01:01
01:19
02:56
03:16
01:33
01:26
00:43
01:22
01:20
02:46
04:34
04:57
02:18
02:32
02:03
03:33
01:45
01:00
03:21
05:32
05:23
02:27
03:44
03:28
03:34
03:40
04:41