Internship Training

at

Narayana Super Speciality Hospital Gurugram, Haryana.

To Analyse the Discharge Process of In-patient department of Narayana Super Speciality Hospital, Gurugram, Haryana

by

Dr. Swati Bhandari

Enrolment No. PG/19/104

Under the guidance of

Mrs. Divya Aggarwal

Assistant Professor & Associate Dean

Academic and Student Affairs

Post Graduate Diploma in Hospital and Health Management

2019-21

International Institute of Health Management Research

New Delhi

NSH/HR/TC/2021/14

May 19, 2021

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr.. Swati Bhandari** has successfully completed **her** training from April 2, 2021 to May 1, 2021 in **Quality** department of Narayana Superspeciality Hospital, Gurugram.

During the period of **her** training with us **her** performance was good and **she** was found punctual, hardworking and inquisitive.

Any information used to complete the project is the intellectual property of Narayana Superspeciality Hospital, Gurugram and hence should not be used for any other purpose.

We wish **her** the very best for all **her** future endeavors.

For, Narayana Hrudayalaya Ltd.

Vikash Yadav
Deputy Manager - Human Resources

Narayana Superspeciality Hospital
(A unit of Narayana Hrudayalaya Limited) CIN: U85110KA2000PLC027497
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H-2020-0700
Apr 21, 2020 - Apr 20, 2023

Appointments
1800-309-0309 (Toll Free)

Emergencies
79700-79700

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The certificate is awarded to

Dr. Swati Bhandari

in recognition of having successfully completed his/her

Internship in the Organization

Narayana Super Speciality Hospital, Gurugram, Haryana

and has successfully completed his/her Project on

"To Analyse the Discharge Process of In-Patient Department"

She comes across as a committed, sincere & diligent person who has a
strong drive & zeal for learning.

We wish him/her all the best for future endeavors.

Training & Development

Zonal Head-Human Resources

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Swati Bhandari, student of PGDM (Hospital & Health Management) from International Institute of Health Management Research, New Delhi has undergone internship training at Narayana Super Speciality Hospital Gurgaon Haryana from 2nd April 2021 to 1st May 2021.

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 fulfilment of the course requirements.

I wish her all success in all her future endeavours.

Ms. Divya Aggarwal

Assistant Professor & Associate Dean

Academic and Student Affairs

IIHMR, New Delhi

Mentor: Ms. Divya Aggarwal

Assistant Professor & Associate Dean

Academic and Student Affairs

IIHMR, New Delhi

Certificate of Approval

The following dissertation titled **"To Analyse the Discharge Process of In-patient department"** at **"Narayana Super Speciality Hospital, Gurugram, Haryana"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **PGDM (Hospital & Health Management)** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

Name   Signature

_____   _____

_____   _____

Certificate from Dissertation Advisory Committee

This is to certify that **Dr. Swati Bhandari,** a graduate student of the **PGDM (Hospital & Health Management)** has worked under our guidance and supervision. He/ She is submitting this dissertation titled "**To Analyse the Discharge Process of In-Patient Department**" at "**Narayana Super Speciality Hospital, Gurugram, Haryana**" in partial fulfillment of the requirements for the award of the **PGDM (Hospital & Health Management).**

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Ms. Divya Aggarwal,

Assistant Professor & Associate Dean,

(Academics and Student Affairs)

IIHMR Delhi

Ms. Sushma

Head of Department,

Quality

Narayana Super
Specialty Hospital

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH,
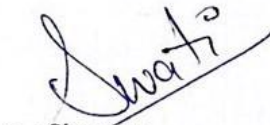
NEW DELHI

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **To Analyse the Discharge Process of In-patient department** and submitted by **Dr. Swati Bhandari** Enrollment No. PG/19/104

under the supervision of Mrs. Divya Aggarwal for award of PGDM (Hospital & Health Management) of the Institute carried out during the period from 2019 to 2021.

The embodies of my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature

FEEDBACK FORM

Name of the Student: Dr. Swati Bhandari

Dissertation Organization: Narayana Super Speciality Hospital, Gurugram, Haryana

Attendance: 1st APRIL - 1st May '2021

Objectives achieved: 1.) Orientation to Operational departments
2.) Project on Discharge Process

Deliverables: Successfully completed on observational study on discharge process.
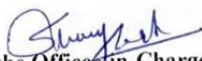
Strengths: Hardworking, sincere, takes interest in learning New things and able to understand new processes.

Suggestions for Improvement:

Trainee should be aware about data analytical tools & Hospital services

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):

Institute should include Project based learning.

Signature of the Office-in-Charge/ Organisation Mentor (Dissertation)

Dr. SUMMY KUMARI.
Quality

Date: 19 June 2021

Place: Narayana Super Speciality Hospital, Gurugram, Haryana

Abstract

The In-patient department in a hospital goes through three different stages. First being admission, next is intervention and the final stage is discharge. If a proper process is not followed it can increase the cost to the hospital and it decreases patient satisfaction which can also lead to increase in patient's exposure to hospital-acquired infections.

It is a descriptive type of study of all the patients who were to be discharged from the ward, from 9 am to 5 pm daily (Except Sundays) from the period of April 2021 to May 2021 (2 Months). Primary Data collected through direct observation, time study, and conversation with the department staff with the help of tabulated TAT time assessment sheet which were filled during each discharge event by the hospital staff.

In the two-month period at Narayana Super speciality Hospital, the discharge process of In-Patient department was observed and found to be a persistent issue. The average turnaround time was calculated and the results are: Average TAT for Cash patients was 04:30:08 and Average TAT for TPA patients was 6:10:45. The stakeholders for the cause of delay for Cash patients were found to be nurses and pharmacists. Whereas for TPA patients the stakeholders were the insurance companies and the nurses.

The barriers to overcome these problems would be better communication, regular training of the staff, maintaining and updating an SOP for the same and designating a particular team for smooth functioning of the discharge process. Maintaining a streamline discharge process shall also improve the efficiency of bed management and effectiveness of the operating process in the hospital setting.

Keywords: Turnaround time, Discharge, Discharge process, In Patient department

Table of Content:

INERNSHIP REPORT:

INTRODUCTION:

Narayana Super Speciality Hospital is situated close to DLF Cyber City in Gurgaon. It has a close bearing to Delhi - Jaipur Highway. It is a NABH accredited hospital with world-class medical facility catering to the healthcare needs of the NCR region. They have experienced medical professionals and the latest medical infrastructure. The hospital represents Narayana Health's commitment to quality medical care and patient service.

Narayana Super Speciality Hospital has been built from the ground-up to be a state-of-the-art facility; with expertly planned and well-equipped sections, including a spacious OPD area and comfortable patient rooms which allows the hospital to cater to both In-Patients and Out-Patients in equal measure.

Narayana Health group (formerly known as **Narayana Hrudyalaya)** is one of India's leading healthcare provider founded in 2000. One of the largest hospital groups in India. With a network of 23 hospitals, 7 heart centres & 19 primary care facilities. They have primarily treated over 2.6 Million patients, from across 78 countries covering 30+ medical specialties, every year. Our Centers of Excellence has helped in treating Adult & Pediatric patients and we have had one of the largest transplants center in India. Spread across 17 locations in India, and one overseas hospital at Cayman Islands, USA. Two of our hospitals have international accreditation from Joint Commission International (JCI) and 19 hospitals have domestic accreditation from National Accreditation Board for Hospitals (NABH).

The world-class medical equipment and infrastructure at the hospital ensures that it is capable of providing a wide range of treatment; from complex to routine, from paediatric to adult. The hospital's location also conferrers on it several key advantages

- It is the closest super speciality hospital from Indira Gandhi International Airport towards Gurgaon,

- It has excellent connectivity through Metro and Highway to Gurgaon and Delhi.

- It is the nearest hospital from DLF Cyber City.

- It is close to major residential areas in Gurgaon.

ORGANISATION PROFILE:

- Their mission is to deliver high quality, affordable healthcare services to the broader population in India. Our core values are represented by the acronym "iCare", which encompasses **i**nnovation and efficiency, **C**ompassionate care, **A**ccountability, **R**espect for all, and **E**xcellence as a culture. At the same time, we seek to generate a strong financial performance and deliver long-term value to our shareholders through the execution of our business strategy.

SERVICES PROVIDED BY ORGANISATION:

Services provides by them includes:

- Cardiology & Cardiac Surgery - Adult & Paediatric
- Neurology & Neurosurgery
- Oncology, Transplants
- Orthopaedics & Joint Replacement Surgery
- Gastroenterology & Gastro Surgery
- Obstetrics & Gynaecology
- Nephrology & Urology

DEPARTMENTS VISITED/WORKED:

- The departments I worked in were Quality as well as Operations.

PROBLEMS & ISSUES IN EACH DEPARTMENT:

- The discharge process was lacking training. The process needs to be streamline.
- Designation of roles and responsibilities needs to be further improved.
- A supervisor should be assigned to manage the whole process.
- A better communication is needed between the staff and the patients.
- The billing counter staff should be trained thoroughly regarding the item present on the he billing executive should be trained about the knowledge of bills.
- Training should be given regarding documents and procedures related to discharge to every new staff.

OBSERVATION/LEARNING:

- During the internship period I was able to learn about the functioning of the various departments of the hospital.
- Interacting with the TPA, Pharmacy and obtaining practical exposure has helped me understand the discharge process even further.
- Performing active and passive audit during the tenure was a fruitful experience as it enhanced my knowledge about the NABH compliances.
- Another experience/ learning at Narayana hospital was of performing the cut strip audit.
- During this tenure I had also learned the process of incident reporting. Right from the reporting to doing the root cause analysis to finding the CAPA (Corrective and Preventive action.)

ANY PROJECTS UNDERTAKEN OTHER THAN DISSERTATION:

- No other project undertaken during the dissertation period.

REPORTING GOOD/ADVERSE EVENTS:

- Narayana Super Specialty Hospital has given me a great exposure.
- It has further enhanced my knowledge as I was able to implement my theoretical knowledge practically.
- The exposure helped me build my confidence and communicate well with the hospital staff and build good relations with them.

Introduction:

Discharge is defined as, "a release of a hospitalized patient from the hospital by the admitting physician after providing necessary medical care for a period deemed necessary."

Hospital discharge plan includes clearance from all departments, bill settlement, and inform patients regarding appropriate post-hospital treatment as per standard documentation. The process comprises of clinical, financial, legal and administrative and record keeping aspects, starts right from writing of discharge orders to settlements of all kinds of hospital bills and isa time-consuming process; but if executed in an organized way with assistance from trained medical, para-medical and administrative staff, can be completed as per global standards or those prescribed by hospital accreditation boards like NABH at national level. Therefore, keeping in view above factors a study on discharge process of patients was conducted at Narayana Super Speciality Hospital, Gurugram, Haryana.

Types of Discharges:

There are several types of discharge in a hospital which are following:

- **PLANNED:** This refers to common discharge procedure which happens when the patient has been advised by the doctor to go home 3-4 Hrs.
- **LAMA/DAMA:** Discharge/Leave against medical advice. In few of the unfortunate case the patient might not be cured or there may not be any improvement in the health status of the patient .in such cases also they are discharged against some advice. It takes 5-6 hrs approximately.
- **EXPIRY:** Patient may be discharged with death summery in case of his or her demise. It takes3-4 hrs. approximately.

There are two types of bill payment options:

- **TPA** (It will take around 4-5 hrs)
- **Cash** (It will take around 3-4 hrs)

Preparation of Discharge Summary:

•Once the treating doctor declares that the patient "Fit to be Discharged" (after discussing with patent I patient attendant), the Executive coordinates with RMO/treating doctor (or) his Iher team member for the preparation of Discharge Summary,

•The draft is prepared and forwarded to treating doctor or his team member fornecessary correctors or authorization.

Objectives:

- To study the process of discharge at Narayana Super Specialty Hospital, Gurugram, Haryana.

- To find the average discharge turnaround time in IPD patients.

- To identify the factors leading to delay in discharge process and propose solutions to decrease the turnaround time from the Inpatient Department.

Rationale:

- This study will help in enumerating and describing the key reasons for delay in discharge process of In-patient department which is a challenge faced by many hospitals, impacting the patient satisfaction and decreasing their footfall.

- Thus this study will also propose recommendations to implement.

Literature Review:

It has been found that patient discharge process in Hospital needs to be ideal and delightful for patient satisfaction. As reducing the discharge process time leads to a lot of benefits to the hospital and prove to be very fruitful.

Patel et al., 2017, identified four common barriers for early patient discharge:

(1) Lack of communication between nurses, floor managers, and administrative staff about discharge planning.

(2) Obtaining home services, equipment, and oxygen early in the morning.

(3) Arranging transportation.

(4) Communicating discharge expectations with patients and family members. Also suggesting that intervention in three key areas are: education, process changes, and audit and feedback.

Hisham et al., 2020 analyzed that pending investigation or cross-consultation on the last day of discharge can also leads to significant delay in the discharge TAT.

Wertheimer et al., 2016 and Eymin et al.,2016 suggested of creating a dedicated multidisciplinary team and forming a checklist of daily responsibilities which was found effective. Results were drastic as within the first 8 months of the study, the LOS of patients decreased and on an average 42% of the patients were discharged before noon which was 16% earlier. The checklist simply helped the staff in providing a clear definition of roles, attend to daily feedback from patients and achieve a standardized form of communication.

Methodology

Study Design:

- This is a cross sectional, descriptive study.

Data source:

- **Primary data** was collected on a daily basis:
    - o Daily basis interaction with staff on nursing station.
    - o Daily basis interaction with the ward floor (executive).
    - o Daily basis interaction with the nurse in charge.
    - o Daily basis interaction with the TPA.
    - o Daily basis interaction with the Pharmacist

- **Secondary data** was collected from:
    - o Literature review of 4 published papers.
    - o In patient guide.
    - o Organizations patient discharge policy.

Study Period:

- The study was conducted for a period of 2 months from April to May 2021.

Study Area:

- In-patient department of Narayana Super Specialty Hospital, Gurugram, Haryana.

Sample size:

- Two types of bill payment options are considered in this study:
    - ▪ **TPA** (100)
    - ▪ **Cash** (100)
- A sample size of 200 patients in process of discharge from hospital were randomly selected, observed and tracked during the tenure of the dissertation period.

Type of sampling:

- Random sampling

Method of data collection:

- Observation using a clock.
- Hospital's discharge checklist.
- HMIS software- ATMA

Discharge Process:

Discharge Process for Cash Patient:

1. • Consultant's Initiation of Patient discharge.
2. • Initiation by Nursing Staff.
3. • File sent for preparation of Discharge Summary.
4. • Draft checked.
5. • Discharge summary Finalized.
6. • Drug returned for Pharmacy clearance.
7. • Activity sheet sent for bill preparation.
8. • Bill generated.
9. • Patient's settlement of bill.
10. • Patient discharged.
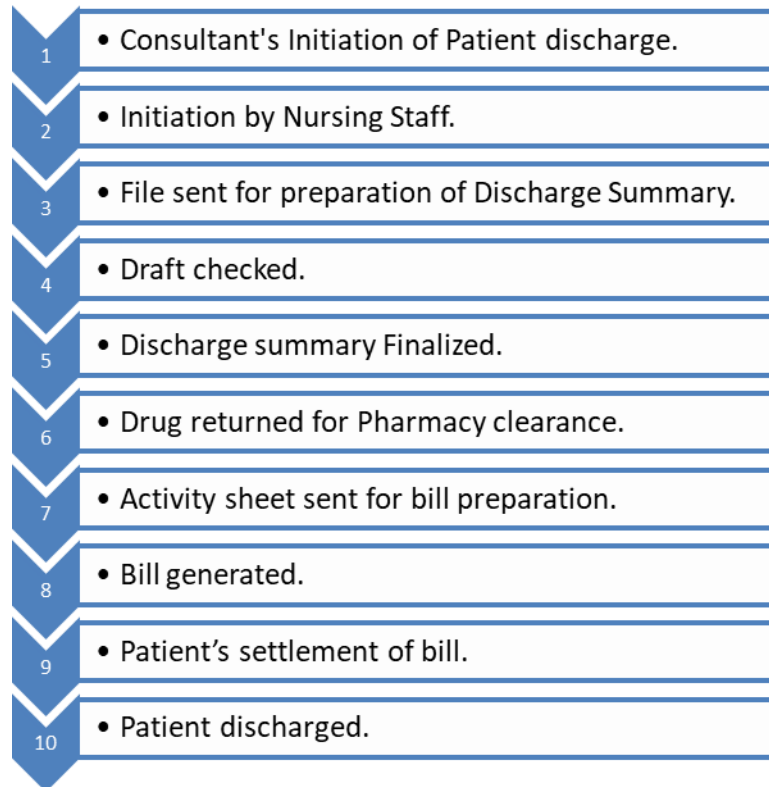
Discharge Process for TPA Patient:

1. • Consultant's Initiation of Patient discharge.
2. • Initiation by Nursing Staff.
3. • File sent for preparation of Discharge Summary.
4. • Draft checked.
5. • Discharge summary Finalized.
6. • Drug returned for Pharmacy clearance.
7. • Activity sheet sent for bill preparation.
8. • Bill generated.
9. • **File sent to TPA for approval.**
10. • **TPA approval received.**
11. • Settlement of bill.
12. • Patient discharged.
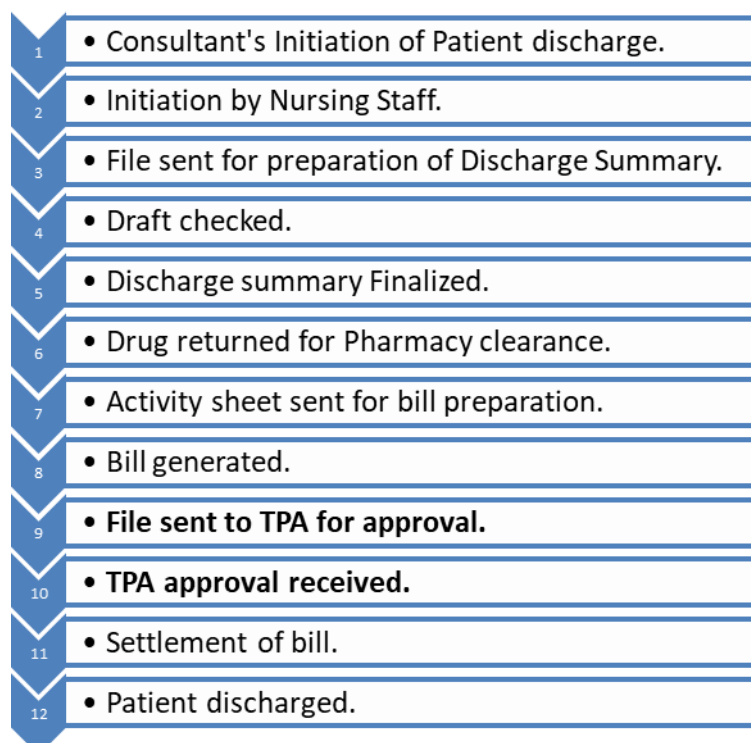
Data Presentation and Analysis:

CASH Patients:

S.NO	DOD	MRN NO.	SPONSOR	Discharge Announcement	Pharmacy Clearance	Bill Prepared	Physical Discharge	Total TAT
1	17/3/2021	52971	CASH	11:34	9:10	17:46	17:20	5:46
2	17/3/2021	49804	CASH	12:11	10:20	16:38	19:00	6:49
3	17/3/2021	40195	CASH	14:50	13:05	16:45	17:30	2:40
4	18/3/2021	54076	CASH	9:48	14:56	12:23	13:30	3:42
5	18/3/2021	39813	CASH	9:50	15:47	12:03	15:00	5:10
6	18/3/2021	52293	CASH	11:36	15:40	16:21	16:40	5:04
7	18/3/2021	50224	CASH	12:45	10:44	16:03	18:30	5:45
8	18/3/2021	54218	CASH	13:03	11:46	14:34	16:00	2:57
9	19/3/2021	30154	CASH	10:29	12:45	11:35	16:05	5:36
10	19/3/2021	43271	CASH	16:40	13:51	17:11	19:45	3:05
11	20/3/2021	51436	CASH	9:20	13:52	10:14	13:15	3:55
12	20/3/2021	21260	CASH	11:10	10:55	14:21	16:15	5:05
13	20/3/2021	54385	CASH	11:35	17:06	15:30	16:55	5:20
14	20/3/2021	54321	CASH	11:20	9:45	15:05	16:30	5:10
15	20/3/2021	50915	CASH	12:40	12:13	14:33	18:35	5:55
16	20/3/2021	54167	CASH	13:55	11:58	14:53	16:05	2:10
17	20/3/2021	54184	CASH	15:41	12:10	17:51	18:00	2:19
18	21/3/2021	54383	CASH	9:40	13:31	18:30	19:40	10:00
19	21/3/2021	54434	CASH	9:41	14:39	11:35	12:20	2:39
20	22/3/2021	01517	CASH	10:56	16:19	11:50	12:40	1:44
21	22/3/2021	53983	CASH	13:14	10:03	14:39	15:26	2:12
22	22/3/2021	54340	CASH	15:02	10:03	15:54	19:10	4:08
23	22/3/2021	46347	CASH	15:29	11:12	17:17	18:15	2:46
24	23/3/2021	54120	CASH	9:16	13:30	10:47	11:15	1:59
25	24/3/2021	47164	CASH	10:00	15:27	11:44	12:25	2:25
26	24/3/2021	54456	CASH	10:40	15:55	12:20	12:45	2:05
27	24/3/2021	15486	CASH	12:15	10:09	18:04	18:25	6:10
28	25/3/2021	54360	CASH	10:50	10:34	12:06	17:39	6:49
29	25/3/2021	49056	CASH	14:02	11:21	16:23	16:55	2:53
30	25/3/2021	53956	CASH	14:40	12:56	15:40	15:58	1:18
31	26/3/2021	54648	CASH	10:20	11:16	13:21	16:20	6:00
32	26/3/2021	54535	CASH	10:20	14:41	15:13	15:50	5:30
33	26/3/2021	50229	CASH	11:20	15:01	15:20	15:50	4:30
34	26/3/2021	54530	CASH	14:58	10:55	16:18	16:50	1:52
35	27/3/2021	54603	CASH	8:30	10:50	12:33	13:10	4:40
36	27/3/2021	54711	CASH	10:15	11:51	11:31	11:55	1:40
37	27/3/2021	54879	CASH	15:50	15:26	16:31	17:15	1:25
38	28/3/2021	51994	CASH	11:00	9:54	17:03	17:50	6:50
39	28/3/2021	54669	CASH	15:25	10:52	17:57	18:10	2:45
40	29/3/2021	20520	CASH	9:20	16:06	12:45	13:20	4:00
41	30/3/2021	54986	CASH	10:20	11:30	16:20	17:00	6:40
42	30/3/2021	55061	CASH	10:30	16:22	16:14	16:50	6:20
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46	31/3/2021	55110	CASH	10:35	11:51	11:44	14:00	3:25

47	31/3/2021	54779	CASH	12:40	11:53	15:55	18:10	5:30
48	31/3/2021	54211	CASH	13:00	10:54	14:35	15:10	2:10
49	31/3/2021	10428	CASH	14:20	10:55	16:16	16:45	2:25
50	31/3/2021	47139	CASH	16:32	13:29	18:57	19:52	3:20
51	01/5/2021	58153	CASH	10:57	11:31	17:06	18:00	7:03
52	01/5/2021	58887	CASH	10:59	11:30	23:33	23:37	12:38
53	01/5/2021	58668	CASH	11:43	12:19	15:38	15:58	4:15
54	02/5/2021	59200	CASH	10:20	10:29	11:14	12:41	2:21
55	02/5/2021	59001	CASH	11:40	12:27	14:28	15:23	3:43
56	02/5/2021	58406	CASH	12:23	12:54	15:24	15:34	3:11
57	02/5/2021	18790	CASH	12:47	13:26	14:04	16:24	3:37
58	03/5/2021	59228	CASH	11:35	11:50	16:28	16:52	5:17
59	03/5/2021	58401	CASH	11:52	12:26	18:01	21:41	9:49
60	03/5/2021	58993	CASH	12:31	14:36	17:01	17:37	5:06
61	03/5/2021	55988	CASH	15:11	15:52	18:15	21:41	6:30
62	03/5/2021	59369	CASH	16:35	16:44	18:48	21:42	5:07
63	03/5/2021	59365	CASH	17:10	17:24	19:12	22:16	5:06
64	04/5/2021	58325	CASH	14:19	16:14	18:10	18:13	3:54
65	05/5/2021	58608	CASH	10:19	10:35	12:34	12:52	2:33
66	05/5/2021	59211	CASH	12:17	12:37	16:18	16:43	4:26
67	05/5/2021	59085	CASH	12:17	12:37	14:43	16:41	4:24
68	06/6/2021	58149	CASH	14:45	14:59	16:58	18:00	3:15
69	08/5/2021	59359	CASH	12:25	12:31	13:23	14:40	02:15
70	08/5/2021	59500	CASH	12:29	12:36	13:29	14:40	2:11
71	09/5/2021	59547	CASH	11:07	11:33	14:45	15:02	3:55
72	09/5/2021	59637	CASH	11:07	13:54	14:32	15:01	3:54
73	10/5/2021	44560	CASH	11:00	11:46	13:46	11:21	0:21
74	10/5/2021	59488	CASH	11:00	12:19	16:09	19:13	8:13
75	10/5/2021	59569	CASH	12:53	13:28	14:04	15:20	2:27
76	10/5/2021	59535	CASH	13:21	14:24	16:16	19:13	5:52
77	10/5/2021	59517	CASH	15:16	16:06	16:16	21:59	6:43
78	10/5/2021	58145	CASH	15:25	16:06	16:16	17:25	2:00
79	11/5/2021	26710	CASH	11:37	12:22	14:05	15:15	3:38
80	12/5/2021	56849	CASH	10:34	11:26	12:16	12:56	2:22
81	12/5/2021	59139	CASH	10:50	11:30	14:14	15:17	4:27
82	12/5/2021	59679	CASH	12:42	14:10	14:45	15:15	2:33
83	12/5/2021	58717	CASH	15:53	16:06	16:56	21:03	5:10
84	12/5/2021	59519	CASH	15:51	16:06	16:48	20:04	4:13
85	13/5/2021	32925	CASH	10:05	10:47	14:31	15:31	5:26
86	13/5/2021	59462	CASH	11:10	12:36	18:33	22:05	10:55
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88	13/5/2021	59469	CASH	12:45	13:32	14:15	15:31	2:46
89	13/5/2021	58489	CASH	13:15	15:08	17:55	22:05	8:50
90	13/5/2021	59718	CASH	15:25	16:00	17:25	22:06	6:41
91	14/5/2021	59713	CASH	11:03	11:19	12:22	14:25	3:22
92	14/5/2021	59732	CASH	10:20	10:58	13:59	16:18	5:58
93	15/5/2021	59521	CASH	11:20	10:58	13:15	18:21	7:01
94	15/5/2021	59180	CASH	12:20	11:11	15:19	16:05	3:45

95	15/5/2021	59726	CASH	14:47	15:13	15:49	19:15	4:28
96	17/5/2021	52376	CASH	10:30	12:59	17:52	18:24	7:54
97	17/5/2021	59826	CASH	10:30	12:59	15:09	15:33	5:03
98	18/5/2021	59275	CASH	10:25	10:41	14:57	15:26	5:01
99	18/5/2021	59669	CASH	10:25	10:41	15:06	15:26	5:01
100	18/5/2021	59660	CASH	13:57	14:02	14:28	21:06	7:09

Data Presentation and Analysis

Interpretation:

- The average TAT for Cash patient was found out to be **04:30:08**.

S.NO	DOD	MRN NO.	SPONSOR	Discharge Announcement	Pharmacy clearance	TPA Process	TPA approval	Final bill Prepared	Physical Discharge	Total TAT
				TPA Patients:						
1	21/4/2021	54513	TPA	9:54	10:30	10:48	14:21	14:47	15:20	5:26
2	22/4/2021	48607	TPA	10:27	10:55	11:19	14:05	14:40	15:30	5:03
3	22/4/2021	53920	TPA	12:35	13:31	13:44	17:39	18:02	21:10	8:35
4	23/4/2021	54559	TPA	9:46	10:08	10:36	13:57	14:25	16:00	6:14
5	23/4/2021	49845	TPA	10:45	10:53	11:07	13:54	15:04	15:38	4:53
6	24/4/2021	16242	TPA	10:50	11:20	11:27	14:28	14:41	15:00	4:10
7	24/4/2021	54659	TPA	11:00	11:58	12:10	16:09	16:31	18:10	7:10
8	24/4/2021	54467	TPA	12:00	12:42	12:49	16:14	16:48	18:55	6:55
9	24/4/2021	54404	TPA	12:40	13:13	13:24	17:02	17:29	18:35	5:55
10	24/4/2021	02084	TPA	16:00	16:27	16:48	19:27	19:54	20:10	4:10
11	25/4/2021	54719	TPA	14:33	15:00	15:15	17:04	17:16	17:36	3:03
12	25/4/2021	50501	TPA	17:25	18:49	18:54	20:56	21:34	22:35	5:10
13	26/4/2021	54486	TPA	10:15	10:56	13:35	16:52	17:09	20:10	9:55
14	26/4/2021	54350	TPA	10:16	10:57	11:30	14:23	14:46	15:55	5:39
15	26/4/2021	31401	TPA	11:20	11:53	12:04	15:32	15:49	16:36	5:16
16	26/4/2021	54778	TPA	14:50	15:26	15:40	17:29	17:48	18:24	3:34
17	27/4/2021	54493	TPA	10:20	10:43	12:48	14:50	15:15	15:50	5:30
18	27/4/2021	54707	TPA	11:00	11:56	12:04	16:03	16:26	17:35	6:35
19	27/4/2021	00295	TPA	11:05	11:57	12:04	13:48	14:21	14:43	3:38
20	27/4/2021	52431	TPA	11:20	11:58	12:16	15:42	16:10	17:25	6:05
21	27/4/2021	54072	TPA	11:40	12:06	12:18	16:13	16:32	19:00	7:20
22	27/4/2021	54782	TPA	12:00	13:04	13:28	17:04	17:21	19:58	7:58
23	27/4/2021	52410	TPA	14:10	14:29	15:12	17:13	17:45	17:58	3:48
24	27/4/2021	54744	TPA	11:02	11:31	12:41	16:46	17:04	20:30	9:28
25	27/4/2021	03706	TPA	14:10	15:11	15:45	17:37	17:46	18:20	4:10
26	28/4/2021	54744	TPA	11:02	11:31	12:41	16:41	18:25	20:30	9:28
27	28/4/2021	54752	TPA	12:20	13:05	14:44	16:56	17:18	17:38	5:18
28	29/4/2021	27910	TPA	9:32	9:54	10:02	13:12	13:40	14:55	5:23
29	29/4/2021	54468	TPA	10:40	11:08	11:22	14:10	14:30	14:48	4:08
30	29/4/2021	53760	TPA	13:20	13:50	14:05	17:12	17:32	17:54	4:34
31	30/4/2021	54993	TPA	11:30	11:52	12:24	15:10	15:32	15:58	4:28
32	30/4/2021	09685	TPA	13:25	14:00	14:17	17:03	17:31	22:00	8:35
33	30/4/2021	51322	TPA	14:40	15:40	16:15	17:12	17:32	18:50	4:10
34	31/4/2021	51015	TPA	9:20	9:54	10:34	14:21	14:47	21:32	12:12
35	31/4/2021	55183	TPA	12:50	13:29	10:02	13:57	14:25	15:38	2:48
36	05/1/2021	58467	TPA	10:41	10:50	11:31	14:05	14:40	15:56	5:15
37	05/1/2021	57451	TPA	14:30	15:02	15:56	17:12	17:32	20:41	6:11
38	05/1/2021	58562	TPA	16:01	16:30	17:05	20:46	21:32	22:46	6:45
39	05/2/2021	58551	TPA	12:04	12:15	12:40	15:42	16:10	19:25	7:21
40	05/2/2021	58354	TPA	13:40	14:04	14:45	18:29	19:04	22:23	8:43
41	05/3/2021	46786	TPA	11:52	12:26	13:00	16:52	17:09	22:18	10:26
42	05/3/2021	01217	TPA	12:31	14:26	15:39	17:12	17:32	21:43	9:12
43	05/3/2021	58890	TPA	14:23	14:34	17:23	20:49	21:15	22:17	7:54
44	05/4/2021	49882	TPA	12:20	12:54	13:25	16:57	17:25	18:22	6:02
45	05/4/2021	59004	TPA	9:00	14:19	14:51	18:33	19:14	21:39	12:39
46	05/4/2021	01194	TPA	15:03	16:14	16:45	18:17	18:38	20:26	7:24
47	05/4/2021	26658	TPA	16:13	16:55	17:25	20:38	20:51	22:37	6:24
48	05/4/2021	58146	TPA	16:35	17:01	17:25	19:06	19:15	19:30	2:55
49	05/4/2021	58892	TPA	16:13	17:24	17:55	20:02	20:36	21:39	5:26
50	05/4/2021	59010	TPA	18:00	18:24	17:15	20:21	20:48	21:04	3:04
51	05/5/2021	58545	TPA	9:45	10:23	10:45	11:00	15:32	16:37	6:52
52	05/5/2021	58720	TPA	13:10	13:25	14:32	18:26	18:52	22:13	9:03
53	05/6/2021	58969	TPA	10:49	11:10	12:25	15:21	15:48	16:40	5:51
54	05/6/2021	58534	TPA	14:45	14:56	15:55	18:36	18:55	21:26	6:41
55	05/6/2021	44583	TPA	10:49	12:50	13:25	16:00	16:36	17:04	6:15
56	05/7/2021	46632	TPA	10:03	10:12	10:45	14:43	15:09	16:53	6:50
57	05/7/2021	58886	TPA	10:03	10:12	10:40	13:38	14:07	16:53	6:50
58	05/7/2021	58638	TPA	10:03	10:12	10:45	15:22	15:51	16:21	6:18

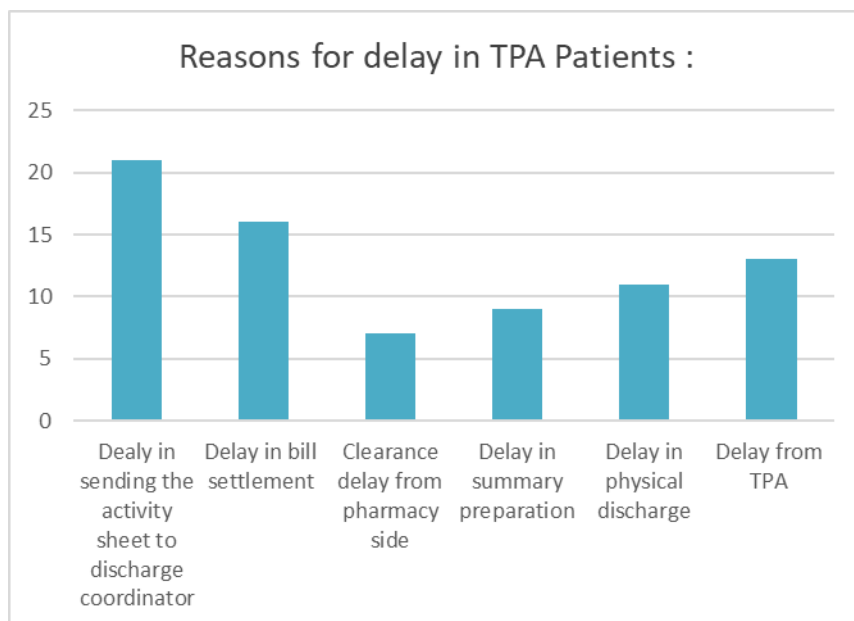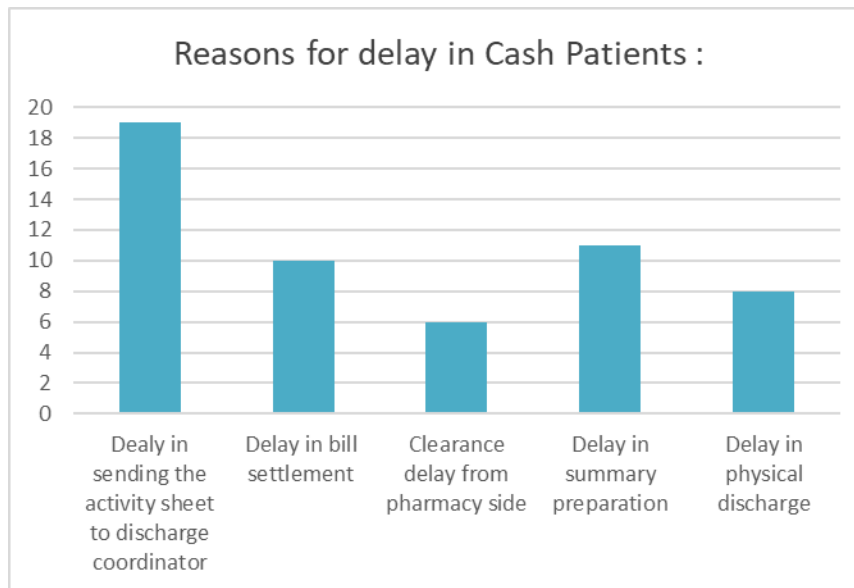|										
59	05/7/2021	59389	TPA	13:09	13:10	13:28	17:03	17:35	18:47	5:38
60	08/5/2021	59370	TPA	11:26	12:24	13:14	16:56	17:34	18:06	5:02
61	08/5/2021	15778	TPA	12:29	12:36	13:27	16:28	17:04	17:53	5:24
62	05/9/2021	59451	TPA	11:07	11:33	11:53	15:02	15:42	16:27	5:20
63	10/5/2021	59506	TPA	11:00	11:55	12:32	16:47	17:00	17:12	6:12
64	10/5/2021	59454	TPA	11:00	11:52	12:22	15:33	15:52	16:30	5:30
65	10/5/2021	10163	TPA	11:00	12:33	12:58	15:46	16:07	16:55	5:55
66	11/5/2021	59683	TPA	10:15	11:21	12:24	15:00	15:28	16:33	6:18
67	11/5/2021	59522	TPA	11:35	12:05	12:24	16:33	16:55	17:27	5:52
68	11/5/2021	58738	TPA	14:10	14:33	15:38	19:06	19:34	21:17	7:07
69	12/5/2021	59532	TPA	10:41	11:05	11:41	14:36	14:58	15:27	4:46
70	12/5/2021	12342	TPA	11:12	11:53	12:41	15:12	15:34	15:55	4:43
71	12/5/2021	59346	TPA	10:54	11:26	11:34	14:21	14:55	16:48	5:54
72	12/5/2021	59455	TPA	11:11	11:55	13:19	15:32	15:51	16:05	4:54
73	13/5/2021	82312	TPA	11:06	11:33	13:28	16:32	16:52	17:18	6:12
74	13/5/2021	59622	TPA	13:15	15:03	15:17	19:24	19:49	22:03	8:48
75	13/5/2021	59115	TPA	13:15	15:07	15:31	18:48	19:22	22:04	8:49
76	13/5/2021	59723	TPA	13:15	15:07	15:24	19:52	20:16	22:05	8:50
77	13/5/2021	59688	TPA	14:55	15:39	15:44	18:38	19:08	22:04	7:09
78	14/5/2021	58469	TPA	11:25	12:38	12:47	15:25	15:37	16:54	5:29
79	15/5/2021	32923	TPA	13:20	11:11	11:31	14:01	14:34	15:36	2:16
80	15/5/2021	59815	TPA	11:50	12:05	13:02	16:11	16:36	17:21	5:31
81	16/5/2021	59742	TPA	8:30	8:45	10:16	13:31	13:47	14:22	5:52
82	16/5/2021	59741	TPA	8:30	8:45	10:22	14:37	14:57	15:30	7:00
83	16/5/2021	58943	TPA	9:00	9:22	10:31	13:18	13:43	14:09	5:09
84	16/5/2021	54350	TPA	11:58	12:03	12:38	16:21	16:38	17:20	5:22
85	16/5/2021	59788	TPA	11:40	12:35	14:15	17:03	17:31	18:02	6:22
86	17/5/2021	59801	TPA	11:00	11:51	13:11	16:19	16:50	17:46	6:46
87	17/5/2021	57079	TPA	11:00	11:51	12:15	16:07	16:41	17:37	6:37
88	17/5/2021	45917	TPA	10:30	11:02	14:15	18:41	18:59	19:28	8:58
89	17/5/2021	59862	TPA	10:30	11:14	12:07	17:39	17:54	20:32	10:02
90	17/5/2021	59825	TPA	10:30	11:25	12:54	16:17	16:38	16:28	5:58
91	17/5/2021	58883	TPA	10:30	11:36	12:00	16:05	16:46	17:50	7:20
92	17/5/2021	58989	TPA	10:30	11:59	12:29	17:46	18:13	22:48	12:18
93	17/5/2021	59832	TPA	10:30	11:58	13:18	16:38	17:04	18:23	7:53
94	17/5/2021	07580	TPA	10:30	10:59	11:28	16:02	16:40	17:51	7:21
95	17/5/2021	59717	TPA	12:20	13:19	15:45	18:54	19:14	22:42	10:22
96	18/5/2021	56706	TPA	12:50	13:18	13:29	17:38	17:53	19:25	6:35
97	18/5/2021	59914	TPA	10:25	11:33	11:27	14:45	14:58	15:15	4:50
98	19/5/2021	59926	TPA	11:05	11:19	11:15	15:04	15:46	18:45	7:40
99	19/5/2021	59869	TPA	11:12	11:41	12:13	15:02	15:28	15:40	4:28
100	19/5/2021	59954	TPA	11:53	12:04	12:27	16:41	17:02	19:15	7:22

Interpretation:

- The average TAT for TPA patient was found to be **6:10:45**.

Results:

A sample size of 200 patients in the process of discharge from hospital, who were paying hospital bill in cash and as TPA were arbitrarily selected during the tenure of training period. During the period of two months it was found out that average TAT for Cash patient was found to be **04:30:08** and average TAT for TPA patient was found to be **6:10:45** as represented in the graph below.
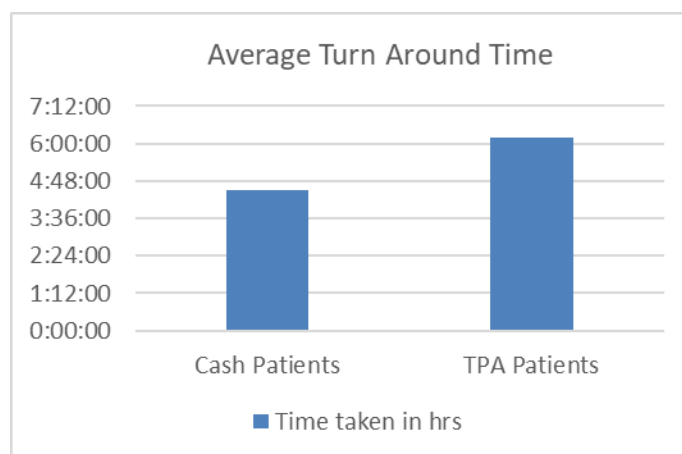
It was also observed that certain reasons for the delay were more prominent in the TPA bill payment. The reason of delay in cash patients were observed to be: delay from nursing staff in sending the activity sheet to discharge coordinator, clearance delay from pharmacy side, delay in bill preparation and settlement, payment delay from patient's side and delay in physical discharge. Whereas the delay observed in TPA were: delay from nursing staff in sending the activity sheet to discharge coordinator, late approval of discharge summary by consultant and therefore delay in getting bill approval from Insurance company, approval delay from TPA side, delay in pharmacy clearance, delay in discharge summary preparation, query raised from TPA side, late in marking for discharge. The graph represents the same:

Reasons for delay in Cash Patients :

A bar chart showing the following values:
- Delay in sending the activity sheet to discharge coordinator: 19
- Delay in bill settlement: 10
- Clearance delay from pharmacy side: 6
- Delay in summary preparation: 11
- Delay in physical discharge: 8

Reasons for delay in TPA Patients :

A bar chart showing the following values:
- Delay in sending the activity sheet to discharge coordinator: 21
- Delay in bill settlement: 16
- Clearance delay from pharmacy side: 7
- Delay in summary preparation: 9
- Delay in physical discharge: 11
- Delay from TPA: 13

Conclusion:

The study is a process map and with observation, average time was found out for patient settlement of bills and their physical discharge from the hospital. The turnaround time for TPA and Cash discharges was found out to be very high and some of the main reasons were:

- Most of the times the discharge was found to be unplanned. Approval delay from Insurance companies.
- Lack of training and communication amongst the staff.
- Delay in clearance from pharmacy.
- Lack of training of newly hired nurses leading to error in procedures.
- Unavailability of GDA on each floor leads to a delay.
- Patients bargaining at the billing counter at the time of bill settlement, leads to a lot of time consumption and chaos at the billing counter.
- Sometimes patients seek time to arrange funds for the payment of the bill.
- Sometimes there are mistakes in the bill which result in overestimation. Although this problem doesn't happen many times, but it was observed a few times.
- Patients are sometimes genuinely incapable to pay the total amount of bill, so on humanitarian basis they are given discounts by consulting at various levels of the hospital. These factors lead to extension in time.
- Patients seek detailed explanation of each and every item included in the bill which at times the bill counter executive is unable to explain due to lack of knowledge or training.

Discussion:

For the issues identified in the In- Patient department, these are the following suggestions:

- Hospital must implement or adopt a policy to help the organization's personnel in maintaining a hustle free functioning of the discharge process.
- Every new patient must be immediately informed and counselled about the discharge policy so that they can plan accordingly.
- Nursing Supervisor should be given the duty to ensure a fast and smooth process of sending the activity sheet to discharge coordinator.
- Nursing staffs should check for any missing page or report before sending the file to the MT room.
- IT staffs should take regular visits and keep a check on computer systems and printers.
- A minimum of 4 GDA's on both the floors i.e. two males & two females should be present.
- Training should be given regarding documents and procedures related to discharge to every new staff.
- The details of the bill must be explained to the patients in a detailed manner.
- The patient bills must be verified at least twice to ensure that no overestimation has been done.
- Billing counter staff should have thorough knowledge and should know about each item present on the bill.

Limitations of the study:

The Study is focused on one particular hospital located in Gurgaon, Haryana.
The Study period is only of two months.
Lockdown due to the CoVid-19 situation affected data collection.

Exclusion from the study:

- Day care patients.
- Other mode of payments, e.g.: CGHS & ECHS.
- Also patients discharged on Sunday's were not taken into consideration.

Bibliography

Benjamin Wertheimer, R. E. (2016). Discharge before noon: An achievable hospital goal. *Journal of Hospital Medicine*, 17.

Gonzalo Eymin, A. A. (2018). Hospital: The discharge process. *Medical Journal of Chile*, 12.

Hemali Patel MD, S. M. (2016). Using a Systematic Framework of Interventions to Improve Early Discharges. *sciencedirect*, 11.

Sayed Hisham, S. A. (2020). Application of Predictive Modelling to Improve the Discharge Process in Hospitals. *NCBI*, 19.