SUMMER INTERNSHIP PROGRAM

at

FORTIS HOSPITAL, MOHALI

From 12TH May 2025 to 21ST July 2025

A REPORT BY

RIDHIMA ARORA

Master of Business Administration

Hospital and Health Management

Roll no: 2055

2024-26

under the Mentorship of

Dr. Deepti Sharma

Associate Professor

IIHMR UNIVERSITY

Fortis HOSPITAL
Mohali

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22nd July 2025

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Dr. Ridhima Arora** has completed her internship in **"Medical Administration Department"** of Fortis Multispecialty Hospital Mohali (373 bedded) from 12-May-2025 to 21-July-2025.

She possesses keen observation and incorporates herself with confidence.

We wish her success in her future endeavors and pursuit of her career goals.

For Fortis Hospital

FORTIS HOSPITAL VERIFIED Sector 62, Mohali

Promila Deswal
SBU Learning & Development Lead- HR

IIHMR University Faculty Mentor Approval

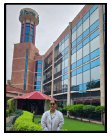
This is to certify that **Dr. Ridhima Arora** of academic year 2024-26 of **Institute of Health Management Research** has prepared a poster with respect to her summer internship held during May-July 2025.

She has carried out work as per the guidelines. Her poster is approved for presentation.

Date: 28/07/25

(Signature of Faculty Mentor)
Name: Dr. Deepti Sharma
Designation: Associate Professor

IIHMR UNIVERSITY



SUMMER INTERNSHIP
AT FORTIS HOSPITAL, MOHALI

Fortis HOSPITAL Mohali

Title Of Study: From Plan to Discharge: An Analysis of TPA and NON TPA Discharges.

About The Organization

Fortis Hospital, Moali, established in 2001, is a leading Multispeciality tertiary care Hospital in North India, Known for advanced care in Cardiac Sciences, Orthopedics, Neurosciences, Oncology, Transplants, Critical Care and Vascular and Robotic Surgery. Accredited by NABH and JCI(2007), it is a part of Fortis Healthcare network and is known for its excellence in clinical care and patient services.

AIM:

To track and analyze Planned Discharges and TAT-based Length of Discharges for TPA and NON TPA patients.

OBJECTIVE:

- To study discharge process.
- Implementing Pre-Discharge Checklist
- To conduct analysis of planned discharges and to streamline and expediate the discharge process of planned discharges through pre-discharge checklist.
- To analyze and compare TAT based length of discharge for TPA and NON TPA patients.

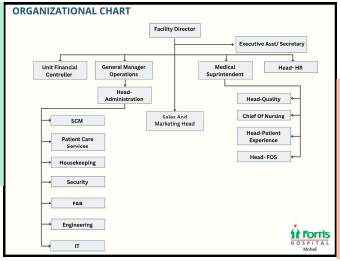
METHODOLOGY:

No. of patients: 3836 Study period: 74 days
Type of study: Observational study
Inclusion criteria: Patients from all wards. (A1, A2, A3, A4, A6, A7)
Exclusion criteria: Intercompany payors
Type of data: Quantitative Data
Primary data: Data is provided by Ward MO of various wards in the evening for planned discharges the coming morning.
Secondary data: Collected through HIS.

Vision

To create a world-class integrated healthcare delivery system in India, entailing the finest medical skills combined with compassionate patient care.

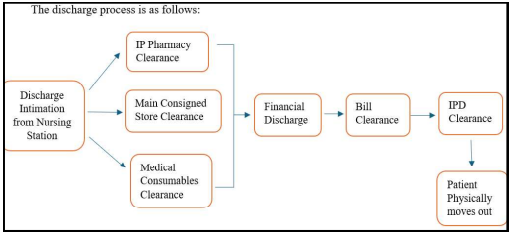
ORGANIZATIONAL CHART



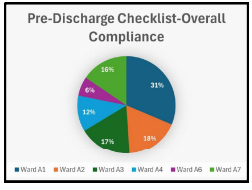
Mission

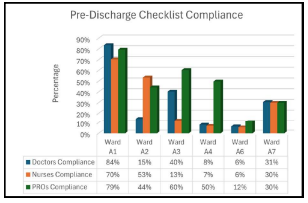
To be a globally respected healthcare organisation known for Clinical Excellence and Distinctive Patient Care.

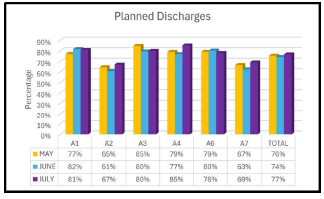
The discharge process is as follows:

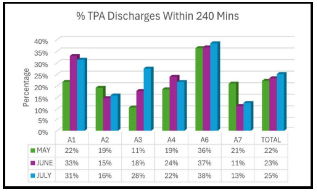


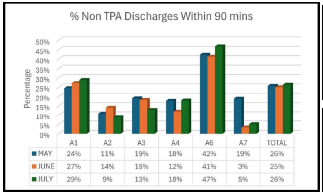
DATA ANALYSIS











Non TPA

Months	Total Discharges	Bill Clearance	GAMS	IPD Clearance	Physical Clearance	LOD
May	991	00:20:59	00:22:38	00:46:03	00:50:14	02:33:36
June	912	00:35:47	00:12:40	00:43:43	00:44:44	02:33:34
July	380	00:31:49	00:11:50	00:45:53	00:44:14	02:31:02

Table 1: Non TPA Average Turn Around Time and LOD

TPA

Months	Total Discharges	Bill Clearance	TPA	IPD Clearance	Physical Clearance	LOD
May	575	01:01:29	03:24:38	00:27:42	00:34:44	05:42:44
June	688	01:02:52	03:16:12	00:30:09	00:33:23	05:38:36
July	290	01:06:58	03:05:17	00:31:06	00:34:13	05:34:52

Table 2: TPA Average Turn Around Time and LOD

TOWS MATRIX

	Strengths	Weaknesses
Opportunities	**S-O Strategies-** • Use established HIS/EMR and standardized protocols to automate more functions and accelerate digital transformation across departments. • Conduct regular trainings and workshops to ensure rapid adoption of technology and best practices across hospital. • Enhance patient centric initiatives by building strong compliance and monitoring patient outcome to design new programs that further improve patient experience.	**W-O Strategies-** • Targeted Resource Investment and Infrastructure Improvement. • Focused Technology Adoption Workshops and Campaigns • Enhance Communication Skills and Protocols through workshops and tools.
Threats	**S-T Strategies-** • Leverage audit systems and quality frameworks to proactively identify and resolve process gaps, reducing the risk of non-compliance • Enhance interdepartmental communication to ensure operational continuity enhancing patient care and satisfaction • Use recognition programs and high performing teams as models to improve compliance and staff motivation.	**W-T Strategies-** • Implement workload balance, schedule breaks and staff assistance programs, schedule events to reduce physical and mental fatigue. • Minimize risks from Manual Dependency by transitioning to newer digital processes. • Targeted Improvement in areas through regular audits to convert weaknesses into opportunities before they become threats.

Key Learnings:

- Day-to-Day hospital Operations and Comprehensive Functioning of various Departments within Hospital
- Importance of Teamwork and Coordination
- Process Mapping
- Data Analysis and Data Based Decision Making
- Data Interpretation
- Information Management through HIS & EMR
- Professionalism

Suggestions to Organization:

- Hiring adequate staff to meet the staff shortage and prevent individual burnout of existing staff.
- Regular and repeated training for EMR.
- Improve clear and effective communication
- Pre-discharge checklist should be maintained and regular audits should be conducted for its compliance
- A person in-charge should be appointed to track daily discharges to improve discharges.

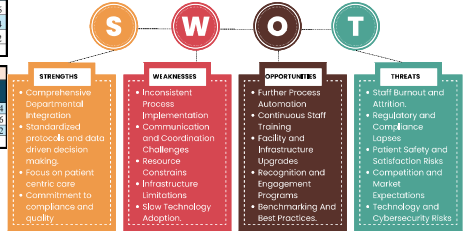
Challenges Faced During Internship:

- Adapting to organization's Culture initially.
- Communication with staff of wards and interdepartmental communication during initial phase.
- Understanding complex processes in hospital.

Difference b/w Theoretical and Practical Exposure:

- Practical Exposure equipped me with dynamics of organizational behavior, enhancing my problem solving skills, while theory equipped me with the framework of it.
- Practical Exposure of softwares like HIS and EMR helped me deepen my understanding of Digital Health along with its challenges in implementation.

SWOT ANALYSIS



SUBMITTED BY- DR. RIDHIMA ARORA (2055) MBA-HM 29
UNIVERSITY MENTOR- DR. DEEPTI SHARMA
INDUSTRY MENTOR- DR. NIVEDITA SINGH

Summer Internship Programme Report

Week-1

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

Week no: 1 **From:** 12th May 2025 **to** 17th May 2025

Activity Done	• Orientation and familiarization with various departments including utility and support services. • Introduction and interaction with various in-charges in different departments and wards. • Observed fellow intern already working in department to understand patient record management on HIS system of fortis. • Observed various processes going on in IPD & OPD.
Linking theory (Classroom learning) with practice at your organisation	• Learnings from Organisation Behaviour module helped me interact with staff in various departments • Learnings from Digital Health module helped me relate with and understand the HIS system.
Gaps identified on the working area.	• Noticed lack of coordination among various departments. • There was inefficiency in communication leading to increased workload. • There was less manpower overloading the nurses and doctors with work.
Suggestions for improvement	• Improved coordination and efficient communication.
Plan for the next week	• Continue observing various processes. • Aim to assist in any process implementation for improving the workflow.

Signature of the Student

Approved by the IIHMR University's Mentor

Summer Internship Programme Report

Week-2

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

Week no: 2 **From:** 19th May 2025 **to** 24th May 2025

Activity Done	• Understood the discharge process of the hospital under various categories. • Audit the pre-discharge checklist for planned discharges • Documented data for compliance of pre discharge checklist for the week. • Collected data to monitor the clinical outcomes of various procedures.
Linking theory (Classroom learning) with practice at your organisation	• Learned why monitoring clinical outcomes is important and what impact does it have on patient satisfaction. • Applied lean management with respect to planned discharges and length of discharges. • Linked all international patient safety goals with the practices followed in the hospital.
Gaps identified on the working area.	• IPGS 2 i.e., effective communication is lacking making the discharge process more cumbersome. • Delays in one or the other part of the discharge process makes discharges delayed. • Less compliance to pre-discharge checklist.
Suggestions for improvement	• More compliance to pre discharge checklist can make the discharge process of planned discharges faster. • Improved effective communication. • Better coordination for better patient management.
Plan for the next week	• Continue auditing pre discharge checklist and try to improve compliance. • Continue monitoring clinical outcomes. • Visit OPD to understand OPD functioning. • Learn about the HIS system in detail and Electronic Medical Record Management on HIS.

Signature of the Student

Approved by the IIHMR University's Mentor

Summer Internship Programme Report

Week-3

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

Week no: 3 **From:** 26th May 2025 **to** 31st May 2025

Activity Done	• Understood the functioning and processes of OPD, including registration and billing. • Conducted Data analysis of planned discharges and length of discharges. • Understood and assisted in Electronic Medical Record (EMR) Management on HIS system.
Linking theory (Classroom learning) with practice at your organisation	• Used concepts from Essentials of Hospital Services Module to understand the workflow and patient flow of OPD. • Applied data analysis skills to review discharge trends of planned discharges. • Used concepts from Digital Health Module to understand EMR and challenges in implementation.
Gaps identified on the working area.	• Some consultants still depend on paper records instead if EMR. • Delays in planned discharges often due to less coordination.
Suggestions for improvement	• Promote full use of EMR through staff training and regular monitoring. • Improve discharge planning with better interdepartmental coordination.
Plan for the next week	• Visit CSSD department to understand the operations in that department. • Discharge file auditing under quality department to assist is timely discharges for planned discharges. • Continue data collection and analysis for planned discharges and length of discharges.

Signature of the Student

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Summer Internship Programme Report

Week-4

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

Week no: 4 **From:** 2nd June 2025 **to** 7th June 2025

Activity Done	• Continued Data Analysis for planned discharges and length of discharge. • Continued assisting in EMR management. • Collected and Analysed data for ICU communications. • Tracked discharges and facilitated in early discharges.
Linking theory (Classroom learning) with practice at your organisation	• Used knowledge from hospital operations management to understand how effect discharge planning can improve bed turnover. • Applied concepts from digital health in working with EMR systems and understanding data accuracy. • ICU communication analysis reflected the importance of coordination and teamwork; concept studied in organizational behaviour.
Gaps identified on the working area.	• Observed that patients and their families lacked clear and timely information about discharges leading to delays, confusion and dissatisfaction among patients. • Gaps in communication between departments (nursing, pharmacy and billing) leading to delays in discharges.
Suggestions for improvement	• Encourage regular meetings for better coordination. • A dedicated discharge coordinator role should be there to streamline communication between departments and for guiding patients and their families.
Plan for the next week	• Study Admission-Discharge-Transfer in depth to help with faster discharges. • Visit OT and CSSD to understand its process and functioning, • Continue observing and documenting patient experience with respect to discharges.

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Summer Internship Programme Report

Week-5

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

Week no: 5 **From:** 9th June 2025 **to** 14th June 2025

Activity Done	• Continued tracking discharges and facilitating in early discharges. • Visited CSSD to understand its workflow, sterilization techniques and quality protocols. • Continued collection and analysis of ICU communications and coordination. • Continued assisting in EMR management via HIS. • Attended a fire safety training session focussed on hospital emergency protocols, evacuation plans and first response actions.
Linking theory (Classroom learning) with practice at your organisation	• Essentials of hospital services module learnings helped me understand the role of CSSD in infection control and overall patient safety. • Quality and safety in healthcare concepts were applied during fire safety training, emphasizing emergency preparedness. • Digital health learnings were used in EMR management on HIS • ICU related observations strengthened understanding of interdepartmental communication and coordination.
Gaps identified on the working area.	• Lack of awareness about emergency protocols among non-clinical staff. • Delays in discharge summaries.
Suggestions for improvement	• Conduct mock drills and refresher sessions on fire safety for all hospital staff, including non-clinical personnel. • Introduce discharge summary timelines and reminders in HIS to ensure timely completion by all involved departments.
Plan for the next week	• Visit Medical Record Department to understand its process. • Conduct pre-op survey for TKR patients and calculate KOOS score.

Signature of the Student

Approved by the IIHMR University's Mentor

Summer Internship Programme Report

Week-6

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

Week no: 6 **From:** 16th June 2025 **to** 21st June 2025

Activity Done	• Conducted a TKR (Total Knee Replacement) pre-op survey to understand patient readiness and experience before surgery. • Learned about the Surgical safety checklist and its role in improving patient outcomes and minimizing surgical errors. • Tracked Cross consultations across departments to observe coordination and documentation practices. • Visited the Medical Record Department (MRD) to understand physical and electronic record handling, archiving and retrieval systems. • Continued with tracking discharges and conducting analysis for planned discharges and LOD.
Linking theory (Classroom learning) with practice at your organisation	• Hospital Quality and patient safety theories helped in understanding how surgical checklists reduce medical errors. • Healthcare Operations Management concepts were applied in analysing coordination through cross-consult processes. • Learnings from essentials of hospital services helped me understand document storage challenges during MRD visit. • Patient survey skills were connected to research methodology module.
Gaps identified on the working area.	• Inconsistencies in updating cross consults on HIS system leading to delays and confusion in patient care decisions • Limited digitalization in MRD and heavy reliance on physical records leading to storage issues
Suggestions for improvement	• Regular audits to facilitate timely updating of cross consult on HIS system. • Increase digitalization in MRD to improve record accessibility and reduce manual storage burden. • Continuous staff training in digital platforms like HIS.
Plan for the next week	• Continue tracking discharges. • Continue TKR survey • Visit Housekeeping and Laundry to understand its functioning. • Start working on final SIP report and poster.

Signature of the Student

Summer Internship Programme Report

Week-7

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

Week no: 7 **From:** 23rd June 2025 **to** 28th May 2025

Activity Done	• Visited Operation Theatre (OT) to understand OT scheduling, patient flow, infection control practices and surgical team coordination. • Continued tracking planned discharges and its analysis. • Continued conducting TKR pre-op patient surveys. • Continued monitoring cross consultations. • Started compiling and organizing data for final internship report and poster presentation.
Linking theory (Classroom learning) with practice at your organisation	• Concepts from Essentials of Hospital Services helped me understand the patient flow and working in OT. • Discharge tracking aligned with the lean management concepts. • TKR surveys helped me with patient engagement.
Gaps identified on the working area.	• Less number of OT bookings in advance leads to last minute adjustments, confusion among staff and delayed surgeries resulting in longer patient waiting times. • OT scheduling conflicts occasionally lead to extended patient waiting time and resource efficiency.
Suggestions for improvement	• Encourage advance OT bookings by establishing a proper method to improve planning and reducing last minute conflicts. • Staff training and coordination.
Plan for the next week	• Visit Housekeeping and Laundry departments to understand their functioning. • Continue tracking planned discharges • Continue working on final report and poster.

Signature of the Student

Approved by the IIHMR University's Mentor

Summer Internship Programme Report

Week-8

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

Week no: 8 **From:** 30th June 2025 **to** 5th July 2025

Activity Done	• Visited Housekeeping and Laundry departments to understand infection control protocols, linen flow, staff deployment and hygiene standards. • Continued tracking discharges and analysis of planned discharges and length of discharges. • Continued assisting in EMR using HIS. • Continued pre op TKR survey. • Continued working on final summer internship report.
Linking theory (Classroom learning) with practice at your organisation	• Visit to Housekeeping and Laundry demonstrated application of hospital support service management studied in essentials of hospital services module. • Digital health module helped mw in EMR.
Gaps identified on the working area.	• Laundry turnaround time is sometimes delayed. • EMR entries in some departments are incomplete or delayed, impacting the availability of real tome data for clinical decisions.
Suggestions for improvement	• Improve laundry coordination for timely availability of linen. • Conduct regular training and reminders for EMR.
Plan for the next week	• Visit IPD and TPA departments to understand their functioning. • Continue working on discharges • Continue with final summer internship report.

Signature of the Student

Approved by the IIHMR University's Mentor

Summer Internship Programme Report

Week-9

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

Week no: 9 **From:** 7th July 2025 **to** 12th July 2025

Activity Done	• Visited IPD to understand the patient flow, final billing and reimbursements procedures through TPA • Continued Tracking Discharges • Continued analysis of LOD and Planned Discharges. • Continued working on EMR. • Continued working on final report and poster
Linking theory (Classroom learning) with practice at your organisation	• Learnings from essentials of hospital services helped me understand the IPD workflow. • Learnings from Digital Health helped me in working on EMR.
Gaps identified on the working area.	• EMR entries in some departments are incomplete or delayed, impacting the availability of real time data for clinical decisions. • Delayed communication coordination with TPA causing delays in discharge procedure.
Suggestions for improvement	• Improved communication and coordination with TPA for better TAT compliance for discharges. • EMR training of staff.
Plan for the next week	• Work on Final report and Poster.

Signature of the Student

Approved by the IIHMR University's Mentor

Summer Internship Programme Report

Week-10

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

Week no: 10 **From:** 14th July 2025 **to** 19th July 2025

Activity Done	• Visited infection control department to understand protocols of prevention of infections in hospital, biomedical waste management and general waste management. • Continued working on final report and poster. • Continued tracking discharges • Continued working on EMR.
Linking theory (Classroom learning) with practice at your organisation	• Learnt about the importance of infection control and its impact. • Used analytical skills to track and analyse the discharges • Digital health learnings helped me with EMR.
Gaps identified on the working area.	• Delays in discharge summaries leading to delays in discharges. • Incomplete EMR documentation in few cases.
Suggestions for improvement	• Implement time bound protocol for discharge summary preparation with auto reminder system in HIS to ensure timely completion. • Organize periodic training sessions and audit to ensure complete entry across departments.

Signature of the Student

Approved by the IIHMR University's Mentor

COMPILED SUMMER INTERNSHIP PROGRAM REPORT

Name of the Organisation: Fortis Hospital, Mohali

Area/ Department: Medical Administration (Hospital Operations)

Name of the Student: Dr. Ridhima Arora

Roll no: 2055 **Stream:** MBA- Hospital and Health Management

ACTIVITES DONE:

During my internship at Fortis Hospital Mohali, I gained experience of hospital management through various activities I was involved in. The various activities performed by me during my internship period are as follows:

- Understanding Discharge Process: Hospital Discharge Process is defined as (acc to NABH) "The systematic and planned procedure for transitioning a patient out of the hospital after their inpatient care is complete". The discharge process in a hospital is very crucial and impacts patient satisfaction, bed turnover time and overall efficiency of the hospital.

  Aim: To track and analyze Planned Discharges and TAT-based Length of Discharges for TPA and NON TPA patients.

  Objective: To study discharge process.
  Implementing pre-discharge checklist
  To conduct analysis of planned discharges and to streamline and expediate the discharge process of planned discharges through pre-discharge checklist.
  To analyze and compare TAT based length of discharge for TPA and NON TPA patients.

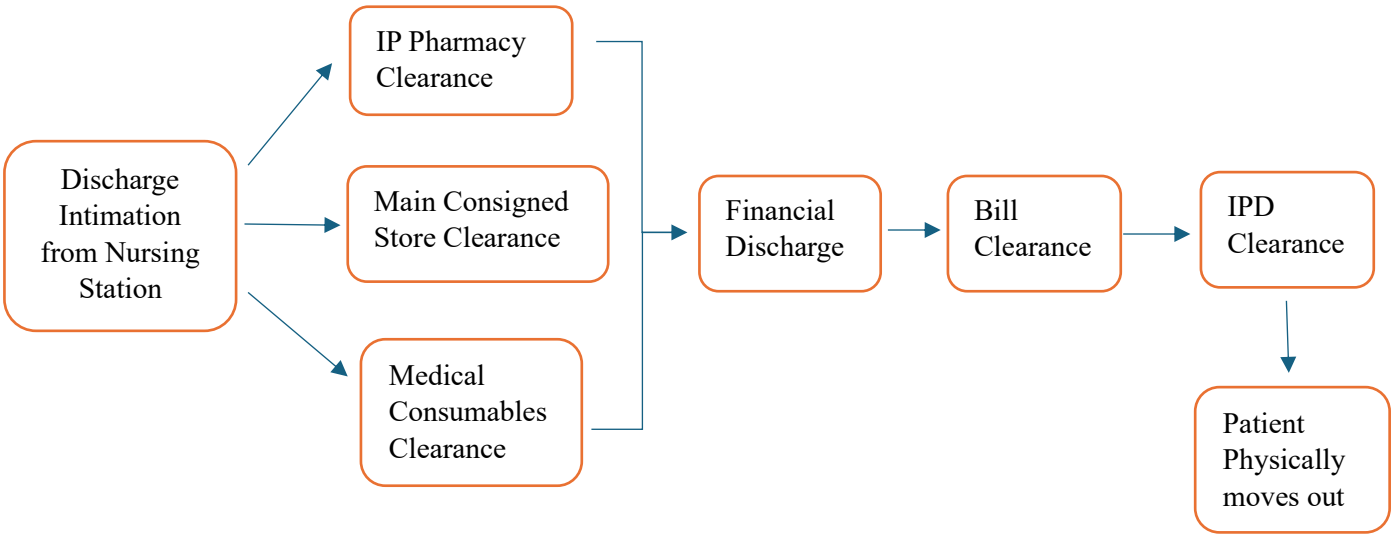
  Methodology: No. of patients: 3836
  Study period: 74 days
  Type of study: Observational study
  Inclusion criteria: Patients from all wards. (A1, A2, A3, A4, A6, A7)
  Exclusion criteria: Intercompany payors
  Type of data: Quantitative Data
  Primary data: Data is provided by Ward MO of various wards in the evening for planned discharges the coming morning.
  Secondary data: Collected through HIS
  TAT for TPA patients- 240 mins
  TAT for NON TPA patients- 90 mins
  Data analysis done on excel through LOD report Downloaded from HIS **(Annexure-I)**

  Discharge process:
  Discharges in fortis are of 3 types:
  - Normal Discharges- Patients admitted ICU/Wards and High Dependency Units (HDU) are discharged after getting full treatment and once doctors give discharge clearance.
  - Leave Against Medical Advice (LAMA)- This type of discharge is against doctor's advice and when patient is not willing to stay at hospital irrespective of his/her condition.
  - Death- This includes patients admitted for treatment but in an unforeseen case patient expires and gets discharged.

  Discharges are also further of 2 types:

- Planned Discharges- Those discharges where doctors assess patient's health and inform 1 day prior of the discharge to reduce sudden intimation and time-consuming process of discharge.
- Unplanned Discharges- These are sudden discharges either due to patient's improved health and when patient is fit to move out or due to patient's unwillingness to stay.

The discharge process is as follows:



Data Analysis

I have conducted data analysis till 13th July 2025 which is as follows:

1. **Pre-Discharge Checklist-** This was an initiative taken by the management to streamline the process of planned discharges during the period of my internship. The checklist ensured key steps such as discharge summaries, medical consumable returns, and patient care instructions and bill estimates were initiated 1 day prior to the discharge to expedite the discharge process of planned patients to avoid last minute delays and improve patient satisfaction. **(Annexure-II)**

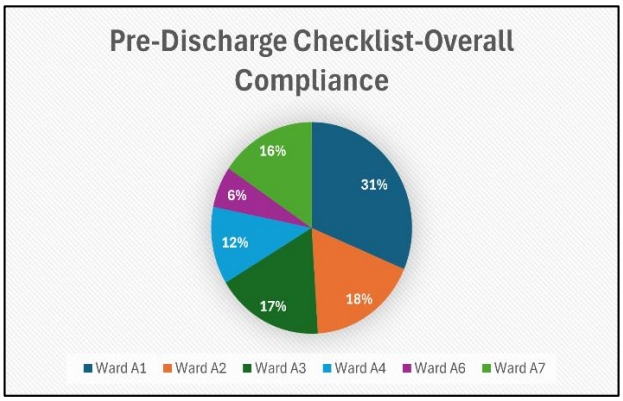


Fig1: Pre-Discharge Checklist-Overall Compliance

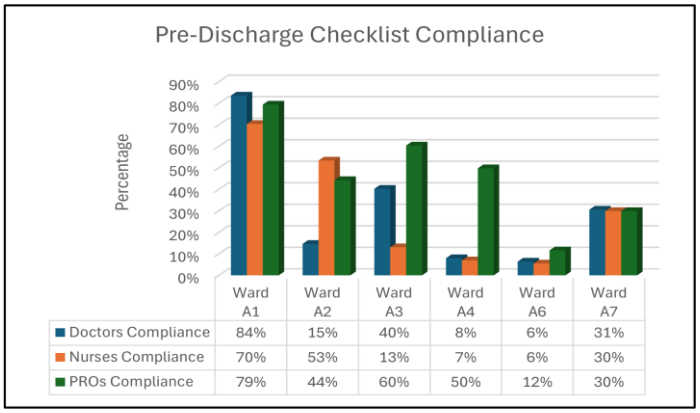


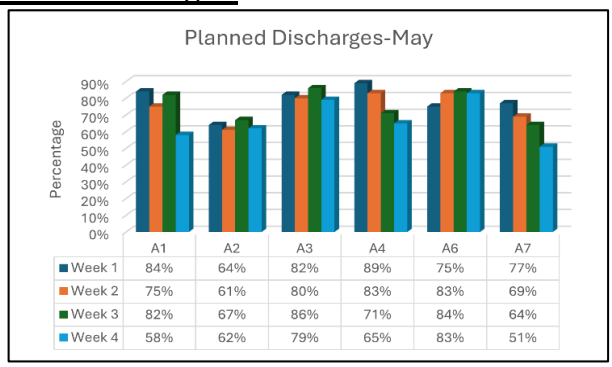
Fig 2: Pre-Discharge Checklist Compliance

Fig 1 illustrates Overall Compliance for pre-discharge checklist for various wards. Interpreting the pie chart, we can see that ward A1 shows the highest compliance for the pre discharge checklist with 31% while A6 shows the lowest compliance with only 6%. Ward A2(18%), A3(17%), A4(12%) and A7(16%) are on similar percentages showing low overall compliance.

Fig 2 illustrates ward-wise Doctor's Compliance, Nurse Compliance and Patient Relation Officer's (PRO) Compliance. Interpreting the bar graph, we can see, Doctor's compliance is the highest in A1(84%) and lowest in A6(6%). In ward A4 also the Doctor's compliance remains low at 8%, A2 is slightly high at 15% while wards A7 and A3 show better performance with 31% in A7 and 40% in A3. Overall high fluctuations can be seen in Doctor's compliance when compared among various wards. Coming to Nurse compliance, ward A1 is still consistent with being the highest having 70% compliance and A6 and A4 are again low with 6% and 7% compliance respectively. Nurse compliance in ward A3 dropped to 13% while in A7 it remains same as doctors at 30%. Lastly, PRO's compliance shows better results in all wards

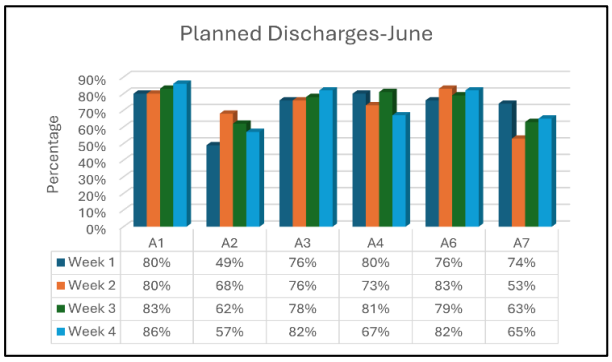
except A6 with only 12% compliance. Ward A1 again remains highest with 79% compliance followed by A3(60%), A4(50%), A2(44%) and A7(30%). Overall Analysis shows that ward A1 is the highest performer in all the roles while A4 & A6 are the lowest performers and needs extra intervention to help streamline and standardize the process.

2. **Planned Discharges-**



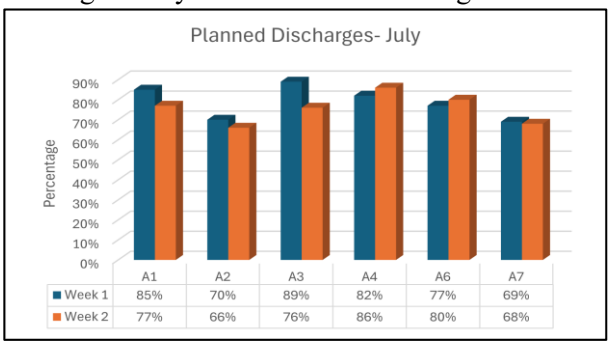
	A1	A2	A3	A4	A6	A7
Week 1	84%	64%	82%	89%	75%	77%
Week 2	75%	61%	80%	83%	83%	69%
Week 3	82%	67%	86%	71%	84%	64%
Week 4	58%	62%	79%	65%	83%	51%

Fig 3: Planned Discharges- May



	A1	A2	A3	A4	A6	A7
Week 1	80%	49%	76%	80%	76%	74%
Week 2	80%	68%	76%	73%	83%	53%
Week 3	83%	62%	78%	81%	79%	63%
Week 4	86%	57%	82%	67%	82%	65%

Fig 4: Planned Discharges-June



	A1	A2	A3	A4	A6	A7
Week 1	85%	70%	89%	82%	77%	69%
Week 2	77%	66%	76%	86%	80%	68%

Fig 5: Planned Discharges-July

Fig 3, Fig 4 and Fig 5 illustrate a week wise analysis of planned discharges for each ward in the months of May, June and July respectively. For ward A1, the percentage of planned discharges was high during 1st, 2nd and 3rd week but were considerable low during the 4th week during the month of May, indicating planning was better in 1st half but was not consistent, while in June, the planned discharges were constant b/w 80-86%, as for July, week 1 showed 85% but dropped in week 2 to 77% again indicating inconsistency in discharge planning. For ward A2, the planned discharge percentage was nearly constant for all the four weeks, ranging b/w 60-65% in month of May but showed fluctuations in the month of June with week 1 being lowest (49%) and week 2 being highest (68%), as of July, the graph fell from week 1(70%) to week 2(66%). For ward A3, the percentage for planned discharges is high with the highest being in week 3 (86%) and lowest in week 4 (79%) in the month of May and, while it dropped in the 1st half of June (76%-78%) A3 ward managed to increase it in last week of June (82%) and 1st week(89%) of July, indicating efforts in improving planning but again showed a drop in 2nd week of July(76%) leading to inconsistent result. Ward A4, for both the months started off with good planning (89% in May and 80% in June) but gradually fell in their metrics by the end of month (65% in May and 67% in June), as for July it improved its discharge planning resulting in 82% (week 1) and 86% (week 2). On the other hand, Ward A6 started with bad planning (75% in May, 76% in June and 77% in July) but closed the month with more no. of planned discharges (83% in May, 82% in June and 80% in July) indicating conscious efforts towards improving planning. Lastly, Ward A7 consistently showed the lowest percentage of planned discharges for both the months with fluctuations in every week, starting with 77% in May and 74% in June and ending with 51% in May and 65% in June, as for July, planning remained below 70% for both weeks. Overall, the best performers were A1, A3 and A6 while A2 and A7 were weak in planning discharges.

3. **Non TPA Discharges within TAT (90 mins)-**Non TPA patients include cash, ECHS, CGHS, Govt & PSU employees and other Private Corporations which reimburses the medical expenses of their employees. TAT for these patients is 90 mins, i.e., the patient should move out of the hospital within 90 mins after giving intimation for clearance.

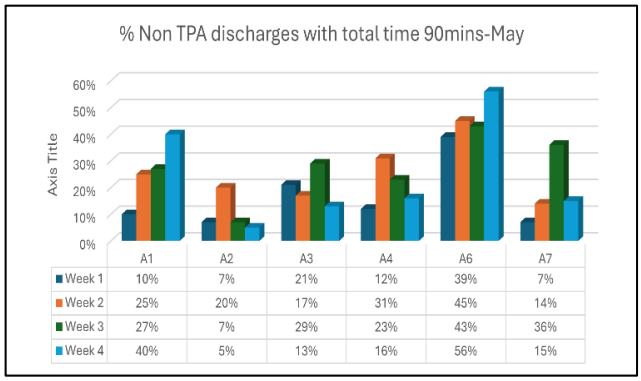


Fig 6: Non TPA Discharges within 90 mins- May

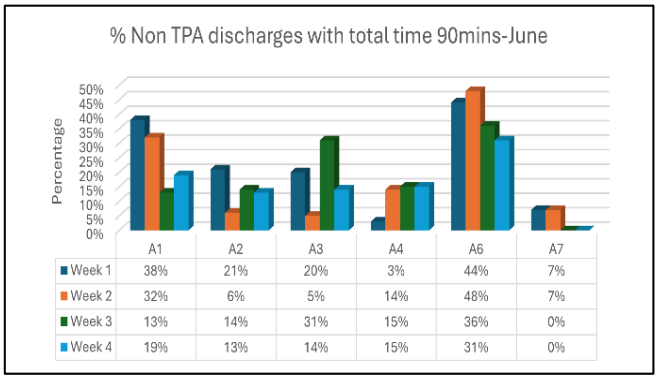


Fig 7: Non TPA Discharges within 90 mins-June

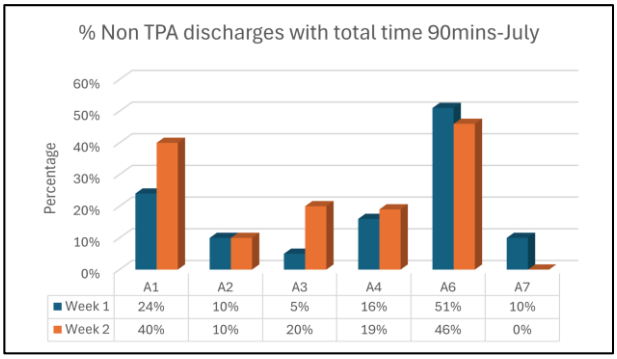


Fig 8: Non TPA Discharges within 90 mins-July

Fig 6, Fig 7 and Fig 8 illustrate ward-wise and week-wise analysis of percentage of Non-TPA Discharges within 90 mins for the months of May, June and July respectively. In the Month of May, ward A1 had low percentage of discharges (10%) but showed improvement by the end of the month having 40% of discharges within the TAT whereas in month of June the metrics fell for A1 ward gradually from week 1(38%) to week 4(19%), as for July, the ward showed significant improvement from week 1(24%) to week 2(40%). For ward A2 the metric was not as good and remained consistently low in all the three months, starting with 7% in week 1 of the month of May and ending with only 10% in week 2 of July. For ward A3, irregular performance can be interpreted from the data for both the months, the percentage of discharges were more in week 1(21%, 20%) and week 3(29%, 31%) and low in week 2(17%, 5%) and week 4(13%, 14%) in both the months respectively, as for July, the discharges within TAT has increased from 5% in week 1 to 20% in week 2. For ward A4, the percentage of discharges peaked in week 2(31%) of May but then gradually fell and showed lowest percentage in week 1(3%) of June, showing improvement after that but not reaching the peak percentage of the ward and ending in 15% by the end of June, as of July, the percentage remained consistently low at 16-19% indicating low performance in discharges within 90 mins. Ward A6, being better than other wards, showed improvement from week 1(39%) to week 4(56%) in the month of May but started declining from week 1(44%) to week 4(31%) in the month of June, as of July, the percentage increased to 51% in week 1 showing significant improvement but showed a decline in week 2(46%). Ward A7 also similarly showed improvement in percentage of discharges from week 1(7%) to week 3(36%) in month of May but showed significant decline in month of June having 0% discharges within TAT by the end of month. In July, the ward showed slight improvement in week 1(10%) but again declined to 0% in week 2. Overall ward A6 stands out and is most consistent and high performing ward in Non-TPA Discharges within 90 mins for all the three months, although there is scope of improvement in this ward as well while ward A7 is the lowest performing ward and needs extra conscious efforts in improving the discharges within TAT.

4. **<u>TPA Discharges within TAT (240 mins)-</u>** TPA patients include patients claiming their medical expenses from private insurance companies. TAT for these patients is 240 mins i.e., patient should move out of the hospital within 240 mins after giving intimation of clearance.

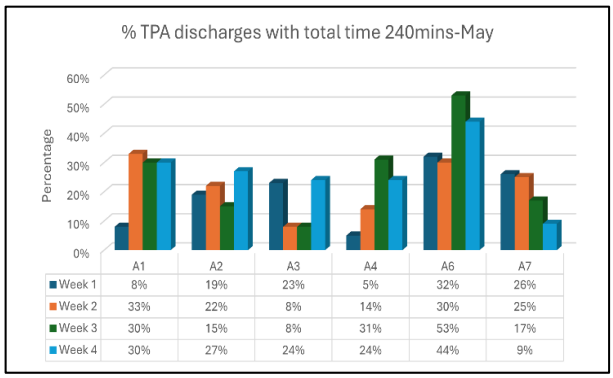


Fig 9: TPA Discharges within 240 mins- May

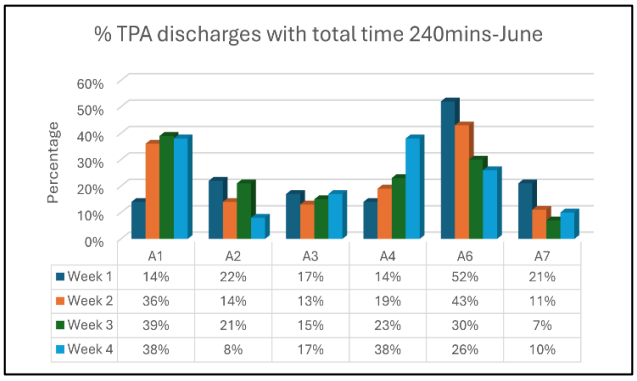


Fig 10: TPA Discharges within 240 mins- June

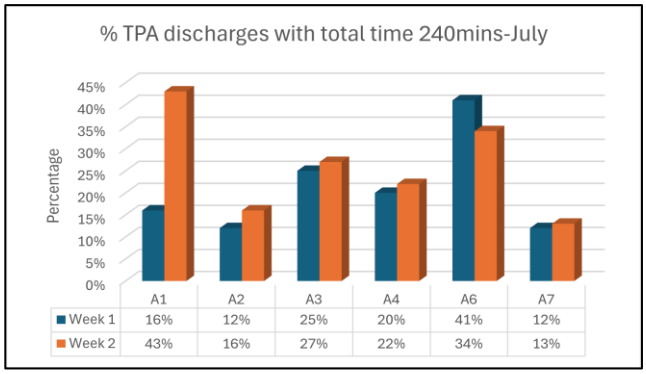


Fig 11: TPA Discharges within 240 mins- July

Fig 9, Fig 10 and Fig 11 illustrate ward-wise and week-wise analysis of percentage of TPA Discharges within 240 mins for months of May, June and July respectively. In the month of May, Ward A1 had low no. of Discharges within 240 min in week 1(8%) but gradually increased their discharges by the end of month in week 4(30%). Similarly, in June and July, week 1, the performance was low with only 14% and 16% of discharges within 240 mins respectively and ended with 38% discharges in week 4 in June and 43% in week 2 in July. In Ward A2, fluctuations can be seen in percentage of discharges within 240 mins with week 1(19%) and week 3(15%) being low and week 2(22%) and week 4(27%) being relatively high in month of May and week 1(22%) and week 3(21%) being relatively high and week 2(14%) and week 4(8%) being low in discharges in month of June, as for July, ward's performance remained constant in week 1 and week 2 at 12% and 16% respectively. Ward A3 percentage of discharges in week 1(23%) were more than week 2 and week 3- both 8% and then rose to 24% in week 4 in month of May which were relatively more when compared to June data which was consistently low b/w 13-17% in all four weeks. As of July, the percentage increased, when compared to June but remains constant b/w 25%-27%. Ward A4 showed significant improvement in the percentage of discharges, starting with 5% in week 1 in May and rising to 24% in week 4 of May and starting with 14% in week 1 of June rising to 38% in week 4 of June but in July, the percentage was constant b/w 20%-22% resulting in declining graph. Ward A6 showed a rising graph in the month of May starting from 32% in week 1, reaching a peak in week 3(53%) then declining in week 4 to 44%. In June, A6's graph declined from week 1 (52%) to week 4(26%), similarly in July as well, a declining graph was seen from 41% to 34%, leading to a decline in performance. Similar metrics can be seen in ward A7 with increased no. of discharges within 240 mins in week 1(26%, 21%) in May and June respectively, which gradually declined in week 4(9%, 10%) in May and June respectively, indicating a falling graph for both the months. In July, a constant performance can be seen in ward A7 with the percentage being 12% and 13% in week 1 and week 2 respectively. Overall ward A6 is better performing ward in May and metrics of May and July are better than that of June in all wards as in May and July the discharges showed an upward trend while in June it showed a downward trend. Also, A1 ward showed significant improvement by the end of 2nd week of July showing efforts in improving discharges within TAT.

5. **<u>Average Length of Discharge-</u>** Length of Discharge is the time taken for a patient to get discharged after the discharge intimation is given to the patient. It is calculated as the difference between discharge intimation time and patient physically moving out of the hospital. The average length of discharge in the month of May and June are as follows:

Non TPA						
Months	Total Discharges	Bill Clearance	GAMS	IPD Clearance	Physical Clearance	LOD
May	991	00:20:59	00:22:38	00:46:03	00:50:14	02:33:36
June	912	00:35:47	00:12:40	00:43:43	00:44:44	02:33:34
July	380	00:31:49	00:11:50	00:45:53	00:44:14	02:31:02

Table 1: Non TPA Average Turn Around Time and LOD

TPA						
Months	Total Discharges	Bill Clearance	TPA	IPD Clearance	Physical Clearance	LOD
May	575	01:01:29	03:24:38	00:27:42	00:34:44	05:42:44
June	688	01:02:52	03:16:12	00:30:09	00:33:23	05:38:36
July	290	01:06:58	03:05:17	00:31:06	00:34:13	05:34:52

Table 2: TPA Average Turn Around Time and LOD

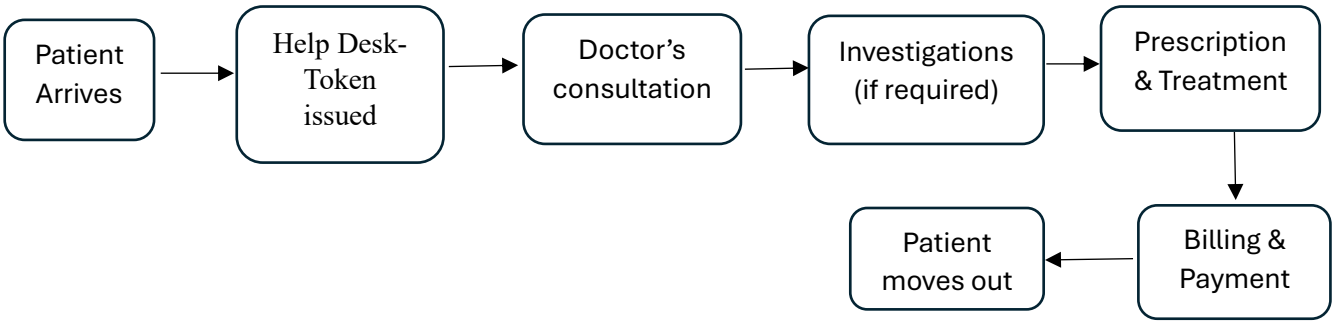
Table 1 illustrates the average turn around time of various steps of discharge process for Non TPA patients for month of May, June and July. It can be seen that Average TAT for bill clearance in May (20 mins 59 secs) is less than that of June (35 mins 47 secs) while clearance from GAMs, IPD and Physical clearance in June (12 mins 40 secs, 43 mins 43 secs, 44 mins 44 secs) is less than in May (22 mins 38 secs, 46 mins 03 secs, 50 mins 14 secs) respectively but average length of discharge in both months remains almost same with a difference of only 2 secs (May- 2hrs 33mins 36secs, June- 2hrs 33 mins 34 secs). When compared to July, the average LOD is 2hrs 31mins 2secs which is 2 mins less than other months showing slight improvements with TAT for bill clearance as 31mins 49sec, Clearance from GAMs recorded as 11mins 50secs, IPD clearance as 45mins 53secs and physical clearance as 44mins 14secs.
Table 2 illustrates the average turn around time of various steps of discharge process for TPA patients for the months of May, June and July. It can be seen that Average TAT for bill clearance in May (1hr 1 min 29 secs) is almost same as that of June (1hr 2 min 52 secs) while clearance from TPA is more in May (3hrs 24mins 38secs) than in June(3hrs, 16mins 12secs), IPD and Physical clearance in May (27 mins 42 secs, 34 mins 44secs) is almost same as in June (30mins 9secs, 33mins 23secs) respectively. Also, the average length of discharge in both months remains almost same with a difference of only 4 mins with discharges in June(5hrs 38mins 44secs) being early than May (5hrs 42mins 44secs). When compared to July, the average LOD is 5hrs 34mins 52secs which is again 4 mins less than June showing improvement with TAT for bill clearance as 1hr 6 mins 58secs, Clearance from TPA is recorded as 3hrs 5mins 17secs, IPD clearance as 31mins 6secs and physical clearance as 34mins 13secs.
Comparing TPA and Non TPA discharges, it can be illustrated that TPA discharges takes more time for clearance than Non TPA discharges.

- Clinical Outcomes Data Collection: Clinical Outcomes refers to measurable changes in patient's health status, quality of life or functional abilities resulting from medical care or treatment. These outcomes are used to assess the effectiveness of interventions and treatments. Fortis Healthcare is the 1st hospital network to monitor and implement clinical outcomes in India. They publish their results on https://www.fortishealthcare.com/clinical-outcomes-at-fortis-healthcare to show their commitment and transparency towards patient care. During my internship period, I called various patients to record their clinical outcomes. Clinical outcomes I recorded were for the following treatments:
  - Coronary artery bypass graft (CABG)- 1 month follow up
  - Percutaneous transluminal coronary angioplasty (PTCA)- 1 month follow up
  - Endoscopic retrograde cholangial pancreatography (ERCP)- 1 month follow up
  - Total Knee Replacement (TKR)- 3 months and 6 months follow up
  - Laparoscopic cholecystectomy (Lap Chole)- 1 month follow up

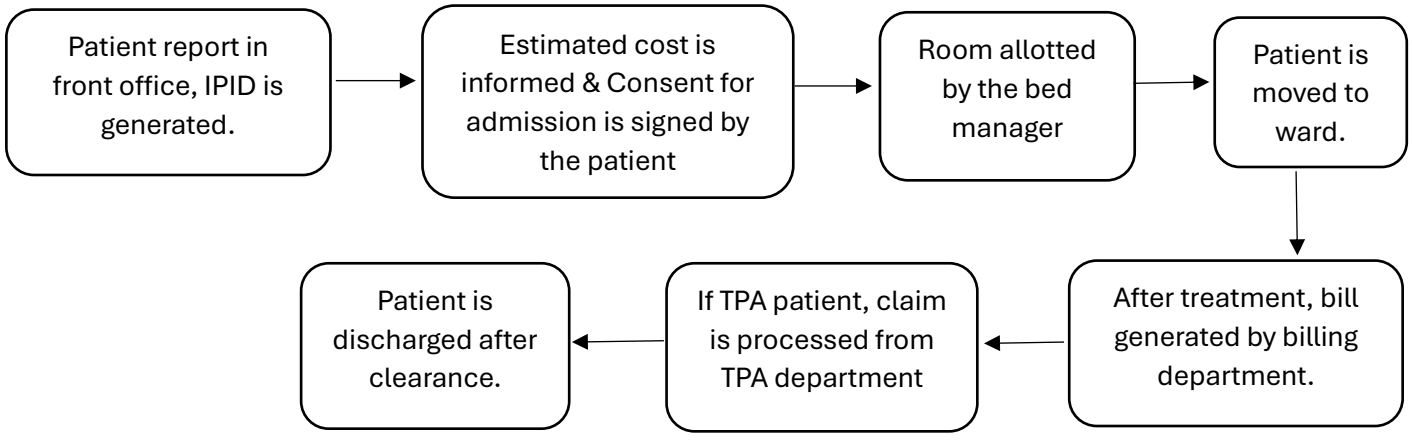
  Apart from these, fortis hospital monitors clinical outcomes for other treatments as well like:
  - Kidney transplant

- Radiation Oncology
- Hysterectomy
- Liver transplant
- Caesarean section

- Conducted survey for TKR pre-op patients: Fortis Hospital, Mohali, to evaluate the clinical outcomes of TKR, actively interacts with patients pre-operatively as well apart from follow up calls. For this purpose, I was also assigned the duty of conducting pre-operative survey of TKR patients through KOOS-12 Knee Survey form **(Annexure-III)**, where I interacted with patients and conducted the survey to know their wellbeing before surgery.
- Understood OPD workflow: Fortis Hospital, Mohali has two level OPD catering the patients. On the ground floor there are counters for cash patients and on 1st floor, there are counters for cashless/army/govt. patients. There are 3 types of counters in OPD- a) for patients booking their appointments through My Fortis app, b) for patients coming walk-in without appointment and c) investigation counter. The maximum waiting time for patients in fortis is 15 mins. OPD in Fortis Hospital, Mohali works on token system. Token no is provided to patient which is displayed on screens in OPD according to which patients are provided consultations.

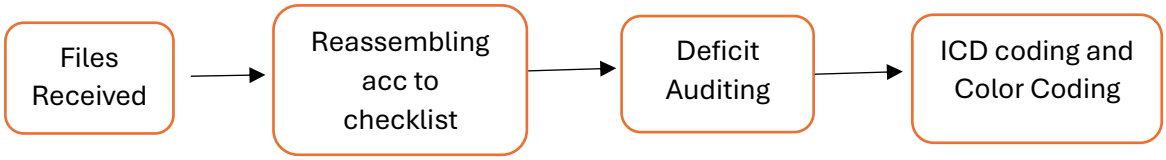


- Conducted Partial File Audit: During my Internship at Fortis Hospital, Mohali, I also was involved in regular Partial File Audit under Quality Department for exposure of working of Quality Department. The parameters I audited include- In Patient history Sheet, Consultant Sign, Investigation Chart compliance, Pre-operative Checklist compliance, Nursing Admission sheet compliance, Nutrition chart compliance, Pre-Anesthetic Checkup compliance and Consents. This activity helped me understand the importance of file compliance to maintain quality standards in hospital.
- Understood IPD workflow: IPD in Fortis Hospital, Mohali is on ground floor. It is responsible for normal admissions in OTs and wards with also admissions from emergency department, after triage (IPD front office), allotting rooms in wards (Bed Manager), resolving patient queries (Patient Experience Department), helping with claims (TPA Department), processing final bills and resolving queries in bills of patients (billing department) and finally discharge of patients (front office). IPD process flow is as follows:



- Understood and assisted in EMR: Electronic medical records are a newly launched process in Fortis Hospital Mohali. Started just approximately 1 year ago, implementation of EMR in Fortis hospital is an ongoing process through proper training of consultants, resolving challenges faced by them while implementing. Since few consultants are aged and face difficulty using EMR software, I used to help them in the same for successful implementation of EMR. Also, I used to assist in training the other consultants in using EMR. The software used by Fortis Hospital, Mohali for EMR was Cerebral Plus software.
- Understood functioning of central sterile supply department: CSSD department in Fortis Hospital is in U-shaped layout with 3 main areas- Semi sterile area, Decontamination area and Sterile area. It also consists of 2 lifts (Dump litter Lifts)- 1 for sending sterile material and instruments in OT and 1 for receiving unsterilized materials and instruments from OT. In the decontamination area, unsterilized material is received from everywhere is hospital like OT, wards, ICU etc. which are then cleaned in ultrasonic cleaner and washer disinfector. Here, negative pressure is maintained. In semi sterile area, there are changing rooms and waiting area. In the sterile area, there are 3 steam sterilizers(autoclaves), 2 ETO (using ethylene dioxide) sterilizers and 1 plasma sterilizer (using Hydrogen Peroxide) for instant sterilization. In autoclaves, linens & metal instruments are sterilized and in ETO material like gloves, plastics and silicone instruments packed in medical grade paper are sterilized. Time taken by autoclave to sterilize instruments is 1hr and in ETO is 12hrs. Storage of sterilized materials are done in sterile area itself where storage time for metal instruments is 3 months, linen is 7 days and instruments sterilized in ETO is 1 year provided they are properly packed in medical grade paper. If unused, are again sterilized before use.
- Tracked Cross-Consultations- Tracking Cross Consults are crucial steps in patient care. I was responsible for tracking cross consults through HIS and ensuring timely communication for cross consultants for patients in wards, followed up on pending consults and supported seamless coordination for patient management.
- Visited the medical records department to understand its workflow: MRD in Fortis Hospital, Mohali, is in basement. It is also a U-shaped Department. Here files are received within 48hrs of discharge of patient. Color coding of files is done in 3 ways- black color is for deceased patients, red color is for medicolegal cases and for normal files, blue color is allotted. Files are stored in warehouse safely as follows:
    - Medico-legal case and Death case- 10 years
    - Routine files- 6 years
    - Organ transplant files- 15 years

  After the required time, a notice is posted in the local newspaper for disposal of files so if anyone wants to extract any data they can do so. After 30 days of notice, files are shredded and disposed of. Process flow in MRD is as Follows:



- Visited Operation Theatre to understand its workflow: There are 3 types of OTs in Fortis Hospital Mohali- Cardiac OT, Ortho OT and MSOT. There are 11 OT rooms in MSOT, 3 OT rooms in Ortho and 1 OT room in Cardiac OT, with 1 pre-op and 1 post-op area in all OTs. Patient OT booking area is on ground floor where patients schedule their surgery and report to OT on the scheduled date and timing. Then the patient is sent to pre-op area where the consent form is signed by the patient and their attendant, and the patient is prepared for the surgery. After Surgery patient is sent to post op area for observation. The observation time varies depending on the surgery. If critical surgery has been performed, the patient is shifted to the wards for post operative care.
- Visited and understood workflow of housekeeping and laundry department: Effective housekeeping in hospital is necessary to ensure clean and safe environment of hospital enhancing patient care. Fortis

Hospital, Mohali has in-house services of Housekeeping and Laundry contributing towards better and clean environment. The housekeeping and laundry department is in the basement and receives soiled and infected clothes/linen from everywhere in the hospital. The department has 2 sluicing machines in which infected linen/clothes are washed in 1% sodium hypochlorite in cold water for 25-30 mins then sent to normal wash with normal detergent and a neutralizer agent to remove the chemical during washing. There are 4 washer extractors where normal soiled linen was washed for 50-60 mins at 60 degree Celsius and infected linen was washed for 65-70 degree Celsius after washing in sluicing machine. There are 3 dryers for drying the linens/clothes after washing. There were 2 flat work ironing machines which can iron 7-9 bed sheets in 1 min and 2 steam irons and 2 irons press for ironing normal clothes like scrubs, aprons, nursing dress etc. The contagious/ infected linen is received in pink bags and is cleaned separately from other clothes/linen to prevent cross infections and maintain clean environment.

- Visited Infection Control Department: Infection Control department is responsible for maintaining quality standards in infection control across hospital. It is also responsible for training and educating nursing staff, doctors, and other general and non-clinical staff regarding hospital acquired infections and infection control while working in the hospital. It also supervises biomedical waste department and housekeeping and laundry department to maintain clean and safe environment for staff and patients. Biomedical waste is collected according to standard segregation protocol and is then sent to treatment plant where the biomedical waste is disinfected first in sodium hypo-chloride and then the recyclable waste is shredded to recycle it accordingly. The non-recyclable waste is incinerated and the ashes produced are used in repair work of roads. The general waste is also segregated and treated accordingly with wet waste generated from kitchen being used as fertilizers and dry waste being recycled. The fluid waste like urine, blood and chemicals are treated in inhouse sewage treatment plants (STP) and effluent treatment plants (ETP) where every fluid is treated and neutralized to be used for gardening. Thus, every type of waste is recycled and used in an appropriate way. There are various posters in wards and lobbies where various protocols like needle stick injury, prevention of hospital acquired infections are displayed to educate staff and patients for their safety. The infection control department also conducts regular audits to ensure and maintain the infection control in the hospital.

LINKING THEORY (CLASSROOM LEARNINGS) WITH PRACTICE:

Learnings gained in the classroom at IIHMR University helped me throughout my internship period at Fortis Hospital, Mohali. The following are the areas I got practical exposure to:

- Role of hospital in catering to the needs of the community.
- Organization behaviors taught in classroom helped me interact with the staff, patients and their families in the organization.
- Effective communication strategies helped me resolve the communication gaps resulting in easy and timely work completion and my better coordination with the staff working in wards. It also helped me with the TKR pre-op surveys I conducted among patients and the data collection.
- Observed how socio-economic factors influence the patient demographics in the hospital.
- Collected and analyzed patient data from various wards, including data downloaded from HIS. Organized this data in different bar charts in order to conduct data analysis.
- I correlated the patient flow, workflow, location, planning and organizing of various departments like OPD, IPD, Emergency, Housekeeping, OT, MRD etc. in the hospital on the basis of theoretical knowledge.
- Managed Clinical Outcomes via patient feedback on follow up calls through clear and consistent communication with patients and their families. Connected them to patient experience department in case of any adverse outcome encountered for resolution. This increased patient satisfaction and resulted in better patient outcomes.
- Digital health learnings were implemented by me in using HIS system for EMR management and secondary data extraction for data analysis.

GAPS IDENTIFIED IN WORKING AREA:

During my internship at Fortis Hospital, Mohali, I was able to identify various gaps that affected the operational efficiency of hospital. These gaps are as follows:

- There were inefficiencies in communication and coordination amongst staff which led to delays in patient care.
- Inadequate staffing levels lead to an increased workload on existing staff which in turn leads to high fatigue amongst the existing staff.
- Less storage space in the MRD department.
- Inadequate patient's lift maintenance leading to delay in patient travel across hospital.
- Irregular and insufficient updating of cross consultation on HIS leading to delay in patient care.
- Less training for EMR leads to dependency on physical records and manual work which in turn leads to burnout of doctors.

SUGGESTIONS FOR IMPROVEMENT:

- Implement regular breaks to prevent burnout of medical officers, doctors and nursing staff.
- Hiring support staff and addressing the staff shortages to reduce the workload of medical and non-medical staff.
- Improve the infrastructure by doing regular maintenance checks, building more storage areas for files.
- Improve training for EMR to reduce manual records and improve patient experience.
- Improve clear and effective communication amongst staff and with patients and their families for better patient care and satisfaction.
- Recognition such as "checklist champions" can be given to the wards performing good in pre discharge checklist compliance to encourage the wards that are lacking in compliance.
- To improve the discharges, assign a person the duty to track daily discharges and ensure timely discharge within TAT by resolving the challenges occurring during the whole process.

KEY LEARNINGS:

During my internship at Fortis Hospital, Mohali, I gained a lot of practical exposure. Some of my key learnings during this period are as follows:

- Understood how streamlined discharge process affects hospital's operational efficiency and patient satisfaction.
- Understood the process of evaluating clinical outcomes and its impact on patient satisfaction.
- Understood the importance of the process of feedback collection to improve patient care.
- Realized the importance of clear and effective communication for smooth functioning among various departments.
- Gained practical insights on how various departments contribute in a hospital to make the hospital operationally efficient.
- Gained hands-on experience of working on EMR and training consultants for the same.
- Learned the importance of data driven decision making in various aspects of functioning. Also, I learned to analyze and interpret hospital data to identify trends and performance gaps.
- Developed problem-solving and leadership skills by performing various day-to-day operational tasks.

Annexure I

LOD Report

Episode No												
Patient Name												
Episode Type												
Ward												
Bed Name												
Admitting Doctor												
Admit Date												
Payor Type												
Dis Intimation Date												
IP PHARMACY												
MAIN CONSIGNED STORE - FHM												
MEDICAL CONSUMABLE												
Financial Disch												
Bill Ready												
Bill Clearance												
Physically Moved												
Discharge Visit Date												
Is Plan Discharge												

Pre-Discharge Checklist

Annexure II

PRE-DISCHARGE CHECKLIST							
To be initiated 1 day (24 hours) prior to Planned Discharges							
S No.	**Checklist**	**Monitoring Responsibility**	**Yes/No**	**Date & Time**	**Information given to**	**Signatures of the recipient**	**Signatures of the concerned**
1	**Is the *first draft* of Discharge Summary Ready? (1 day prior)**	Ward In charge (Doctor)			NA	NA	
	Is the *final* Discharge Summary Ready?	Ward In charge (Doctor)			NA	NA	
	Is the Final summaries shared with TPA desk (if applicable)	Ward In charge (Doctor)					
2	**Returns**						
	1. Medical Consumables	Nursing in charge					
	2. Pharmacy (Drugs)	Nursing in charge					
3	**Nursing Billing updatation**						
	1. Nursing Billing Sheet update (Procedure/Investigation/Cross-referrals)	Nursing in charge			NA	NA	
	2. Financial Estimate till date given to the patient from IPD	PROs					
	3. Mode of Payment explained to patient/attendant from IPD	PROs					
	4. OT consumption to be sent to billing	Nursing in charge					
	5. Pending referrals & investigations list	Nursing in charge					
4	**Instructions were given to patient regarding following aspects**						
	1. Clothing, footwear, conveyance/transport	PROs					
	2. If room/bed not cleared before 11 am, half day rent will be charged in addition to total billing amount.	PROs					
5	**Patient Education given regarding**						
	1. Diet by Dietician	Nursing in charge					
	2. Physiotherapy by Physiotherapist (If applicable)	Nursing in charge					
	3. Medication	Nursing in charge					
	4. Follow-up instructions	Nursing in charge					
	5. Discharge counselling	PROs					
6	**Additional Needs identified & Arranged**						
	1. Wheelchair	PROs					
	2. Equipment	PROs					
	3. Ambulance	PROs					
	4. Home care Service	PROs					
	5. Geo-tagged Pictures for ECHS (if applicable)	Nursing in charge					

Ward In charge (Doctor) **Nursing Incharge** **Area PRO** **Bill Click Time:- _____**

---------- ---------- ---------- **Physical Clearance Time:- _____**

Annexure III

KOOS-12 Knee Survey Form

KOOS-12 KNEE SURVEY

INSTRUCTIONS: This survey asks for your views about your knee. Answer every question by marking the appropriate box, only one box for each question. If you are unsure about how to answer a question, please give the best answer you can.

Pain

1. How often do you experience knee pain?

Never	Monthly	Weekly	Daily	Always
☐	☐	☐	☐	☐

What amount of knee pain have you experienced the **last week** during the following activities?

2. Walking on a flat surface

None	Mild	Moderate	Severe	Extreme
☐	☐	☐	☐	☐

3. Going up or down stairs

None	Mild	Moderate	Severe	Extreme
☐	☐	☐	☐	☐

4. Sitting or lying

None	Mild	Moderate	Severe	Extreme
☐	☐	☐	☐	☐

Function, daily living

The following questions concern your physical function. By this we mean your ability to move around and to look after yourself. For each of the following activities please indicate the degree of difficulty you have experienced in the **last week** due to your knee.

5. Rising from sitting

None	Mild	Moderate	Severe	Extreme
☐	☐	☐	☐	☐

6. Standing

None	Mild	Moderate	Severe	Extreme
☐	☐	☐	☐	☐

7. Getting in/out of a car

None	Mild	Moderate	Severe	Extreme
☐	☐	☐	☐	☐

8. Twisting/pivoting on your injured knee

None	Mild	Moderate	Severe	Extreme
☐	☐	☐	☐	☐

Quality of Life

9. How often are you aware of your knee problem?

Never	Monthly	Weekly	Daily	Constantly
☐	☐	☐	☐	☐

10. Have you modified your life style to avoid potentially damaging activities to your knee?

Not at all	Mildly	Moderately	Severely	Totally
☐	☐	☐	☐	☐

11. How much are you troubled with lack of confidence in your knee?

Not at all	Mildly	Moderately	Severely	Extremely
☐	☐	☐	☐	☐

12. In general, how much difficulty do you have with your knee?

None	Mild	Moderate	Severe	Extreme
☐	☐	☐	☐	☐

Thank you very much for completing all the questions in this questionnaire.