SUMMER INTERNSHIP PROGRAM

at

P. D. Hinduja Hospital and Medical Research Centre, Mumbai

From 12th May 2025 to 15th July 2025

A REPORT BY

Parth Bharat Solanki

Masters of Business Administration

(Hospital & Health Management)

Roll no 2094

2024-26

under the Mentorship of

Dr. Swapnil Gadhave

P. D. HINDUJA NATIONAL HOSPITAL
& MEDICAL RESEARCH CENTRE
(Established and managed by the National Health & Education Society)

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Date:
15/07/2025

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr Parth Bharat Solanki** did **his** Internship in our Hospital from as an Administrative Intern.

During this period, **his** assignment was as follows:

1. Study of Patient Waiting Time in AKD Dialysis Unit
2. Impact of Pharmacy-Related Delays on Patient Discharge Timelines

I wish **him** all the success in future endeavours.

Joy Chakraborty
Chief Operating Officer

Dr. Preeti Goraksha
Assistant Director Quality & Clinical Administration

IIHMR UNIVERSITY

IIHMR University Faculty Mentor Approval

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

He has carried out work as per the guidelines. His poster is approved for presentation.

Date: 30/07/2025

Dr. Swapnil Gadhave
Assistant Professor

IIHMR University, Jaipur

STUDY OF PATIENT WAITING TIME IN AKD DIALYSIS UNIT

Presented by- Parth Solanki Stream- MBA Health & Hospital Management Roll No - 2094 University Mentor- Dr. Swapnil Gadhave Organization Mentor- Dr Preeti Goraksha

P.D. HINDUJA HOSPITAL

The healthcare journey commenced in 1951 by the late Shri P. D. Hinduja, with a vision to provide quality healthcare for all. It is a 400 bedded hospital with 55 specialties. It is known for its rich legacy and proven expertise and has been a pioneer in medical excellence.

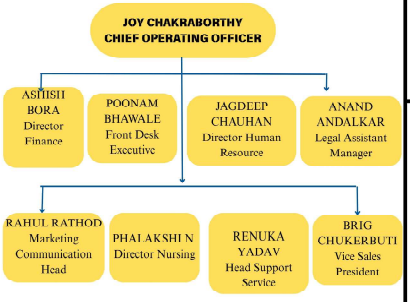
MISSION

To Grow PDHH Into a Self-Sustaining, state-of-the-art Medical Institution with Latest Technology, leading In Clinical Excellence, Education and Research providing 360-degree patient care at affordable prices by ensuring steady growth in Reputation, Revenues and Surplus while fulfilling our purpose of serving the needy by continued growth in charity.

VISION

Quality Health Care for All . Healthcare that is Affordable ,Value based Ethical ,Transparent , Outcome based , Backed by Technology & Innovation

ORGANIZATIONAL STRUCTURE



PRACTICAL vs THEREOTICAL LEARNING

Thereotical

- Learned about Time-Motion Study and delay analysis concepts
- Understood basics of patient flow and scheduling efficiency.

Practical

- Analysing data using MS Excel
- Primary Data Collection.
- collected clinical feedback through surveys and face-to-face conversations with patients.
- Applied methods to interpret clinical feedback and suggest data-backed improvements to minimize service gaps.

AIM & OBJECTIVES

AIM:

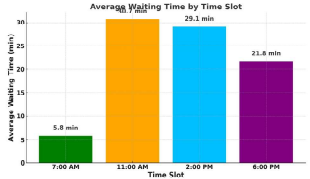
- To assess and reduce patient waiting time before dialysis in the AKD Unit.

OBJECTIVES:

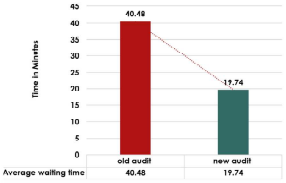
1.Calculate average waiting times across one month
2.Categorize waiting times into meaningful buckets.
3.Identify root causes for delays.
4.Recommend actionable process improvements.

METHODOLGY

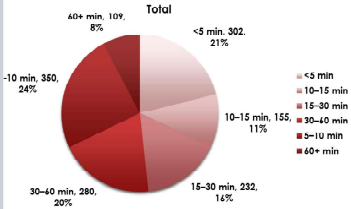
Type of Study: Prospective Observational Study
Target Population: Patient scheduled for Dialysis
Approach: Review of departmental records alongside in-person observation
Data Sources: Direct Observation, Nursing Register,Dialysis Technician Logbook.
Study Duration: Data Collected for 1 month (20th May to 20th June 2025).
Sample Size:107 Patients observed during the study period
1428 dialysis session records collected
Key Data Points Collected
Patient Arrival Time
Scheduled vs. Actual Dialysis Start Time
Reason for Delay
Tools & Methods:
Microsoft Excel used for data compilation and analysis
Manual verification and cross-checking across all three sources



Average Waiting Time in AKD



Comparison with Previous Audit



Delay Distribution by Time Bucket

Arrival Time Before Appointment	No. of Patients	% of Total
< 30 min	61	21%
30–59 min	89	30%
60–90 min	64	22%
> 90 min	79	27%
Total	293	100%

Impact of Early Arrival on Waiting Time

CHALLENGES FACED DURING INTERNSHIP

- Difficulty verifying data from multiple manual sources
- Limited staff cooperation during peak hours
- Patient arrival time inconsistencies affected observations

LEARNING'S DURING INTERNSHIP

- Learned how to collect and analyze real hospital data
- Understood how patient timing affects service flow
- Improved my skills in using Excel for healthcare data analysis
- Learned to communicate with staff and understand on-ground challenges

KEY OPERATIONAL FINDINGS

- Shifting twice-a-week patients to the 7th floor improved bed allocation and flow
- Technician shortages during vacation period affected scheduling
- Limited nursing staff during some shifts reduced support in the dialysis unit
- Patient preferences for specific beds created challenges in smooth scheduling

KEY FINDINGS

- Average waiting time was 19.74 minutes – a 51% improvement from the previous audit
- First batch had the shortest delays, while second and third batches faced the longest waiting times
- 45% of sessions started within 10 minutes; 28% experienced over 30 minutes delay
- 49% of patients arrived more than an hour early, leading to crowding and perceived delays
- Late arrivals in the early morning slots caused disruptions in the day's schedule

RECOMMENDATIONS

- Counsel patients on ideal arrival time (15–20 minutes before session)
- Send SMS reminders to reduce early and late arrivals
- Use digital check-in tools to replace manual logbooks
- Pre-plan bed allocation based on patient schedule patterns
- Include buffer time (15–20 mins) between dialysis sessions for cleaning and handover

SWOT

S
- Well-defined dialysis scheduling system
- Availability of accurate logbooks and records
- Supportive clinical staff for data collection
- Shift to 7th floor improved patient flow

W
- Inconsistent patient arrival times (early/late)
- Manual entry of session data (non-digital)
- Limited buffer time between sessions
- Bed preference conflicts among patients

T
- Staff shortages or technician leaves
- Patient non-compliance with time slots
- Resistance to change from long-term patients
- Dependence on manual coordination between units

O
- Introduce digital check-in and tracking tools
- Patient counseling on ideal arrival time
- Weekly pre-planning of dialysis beds
- Use of SMS reminders for scheduling

Week 1

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre

Area/ Department/ Project of Summer Internship Program: Quality Department

Name of the Student: Parth Bharat Solanki

Roll no: 2094 Stream: HM B

Week no: 1 From: 12th May to 17th May.

Activity Done	I went to the hospital's orientation this week. All of the major departments, including OPD, IPD, Emergency, Pharmacy, Lab, CSSD, and Infection Control, were visible to me. I gained knowledge about how each department operates and how patients are transferred between departments.
Linking theory (Classroom learning) with practice at your organisation	Real-world examples of topics we covered in class, such as hospital departments, infection control, patient care, and quality work, were observed. I now have a better understanding of how theory is applied in hospitals.
Gaps identified on the working area.	There was inadequate signage in some places to direct patients. SOPs are only partially displayed in some departments.
Suggestions for improvement	Increase the number of signboards in the hospital to facilitate patient flow.
Plan for the next week	The Quality Department will assign me a project (minor or major)l. I intend to comprehend the project's subject, watch how things operate, and assist with data collection.

Week 2

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre

Area/ Department/ Project of Summer Internship Program: Quality Department

Name of the Student: Parth Bharat Solanki

Roll no: 2094 **Stream: HM B**

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

Activity Done	I started working on my major project, which was about the AKD Dialysis Unit's waiting times. learned how patient slots are managed by watching the dialysis procedure. recognized the value of time tracking and the impact that delays can have on the schedule.
Linking theory (Classroom learning) with practice at your organisation	Understanding the project made easier by subjects like patient experience, quality improvement, and time-motion studies.
Gaps identified on the working area.	The daily schedule was impacted because some patients were arriving too early or too late.
Suggestions for improvement	To prevent crowding and delays, let patients know when they would like to arrive.
Plan for the next week	Start gathering information and monitoring the wait times for every dialysis session.

Week 3

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre
Area/ Department/ Project of Summer Internship Program: Quality Department
Name of the Student: Parth Bharat Solanki
Roll no: 2094 Stream: HM B
Week no: 3 From: 26th May to 31st May.

Activity Done	Started gathering data every day via direct observation, technician logbooks, and nursing registers. recorded the time of patient arrival, the start of dialysis, and the causes of any delays.
Linking theory (Classroom learning) with practice at your organisation	Arranged the data using Excel tools and data handling techniques that were covered in class.
Gaps identified on the working area.	Inadequate digital timekeeping system. The majority of the records were handwritten and occasionally difficult to match.
Suggestions for improvement	Introduce a basic Excel-based check-in system or digital tool.
Plan for the next week	Continue gathering data and begin examining waiting time trends.

Week 4

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre

Area/ Department/ Project of Summer Internship Program: Quality Department

Name of the Student: Parth Bharat Solanki

Roll no: 2094 Stream: HM B

Week no: 4 From: 2nd June to 7th June.

Activity Done	Collected more information and discovered that the second and third batches had longer wait times. Started classifying waiting times into four groups: less than ten minutes, ten to thirty minutes, thirty to sixty minutes, and more than sixty minutes.
Linking theory (Classroom learning) with practice at your organisation	Used statistical classification techniques that were taught in research and quality courses.
Gaps identified on the working area.	Due to a lack of buffer time between sessions, dialysis machines were not always available on time.
Suggestions for improvement	Include a set amount of time (15–20 minutes) for setup and cleaning in between sessions.
Plan for the next week	Continue analyzing the data and create charts to make it easier to understand.

Week 5

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre

Area/ Department/ Project of Summer Internship Program: Quality Department

Name of the Student: Parth Bharat Solanki

Roll no: 2094 Stream: HM B

Week no: 5 From: 9th June to 14th June.

Activity Done	Analyzed waiting times by batch and trends in early arrivals. It was discovered that some patients in the first batch were arriving late, and many patients, particularly in the later batches, were arriving too early.
Linking theory (Classroom learning) with practice at your organisation	Discovered how scheduling, patient satisfaction, and workflow are impacted by early or late arrivals.
Gaps identified on the working area.	The entire day is delayed when early batches of people arrive late.
Suggestions for improvement	Provide precise appointment and arrival times in SMS reminders.
Plan for the next week	Prepare the presentation's slides and summarize the main conclusions.

Week 6

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre

Area/ Department/ Project of Summer Internship Program: Quality Department

Name of the Student: Parth Bharat Solanki

Roll no: 2094 Stream: HM B

Week no: 6 From: 16th June to 21st June.

Activity Done	The project's data collection from the dialysis unit is complete. Made sure that every entry from the technician logbook, nursing register, and personal observations was accurately filled out. Data entries were cross-checked for accuracy.
Linking theory (Classroom learning) with practice at your organisation	Used the documentation and observation techniques that were covered in class. Discovered how hospital departments gather data in real time.
Gaps identified on the working area.	As they were assigned to other departments, technicians were occasionally unavailable, which disrupted the flow.
Suggestions for improvement	Reduce the amount of time technicians spend moving between units during dialysis hours and plan their shifts in advance.
Plan for the next week	Review the gathered data first, then get ready for the reporting and presentation tasks.

Week 7

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre

Area/ Department/ Project of Summer Internship Program: Quality Department

Name of the Student: Parth Bharat Solanki

Roll no: 2094 Stream: HM B

Week no: 7 From: 23rd June to 28th June.

Activity Done	Learned how to link findings with improvement plans and how quality teams operate in real time. Hospital workflow management and quality tools concepts were useful.
Linking theory (Classroom learning) with practice at your organisation	Learned how to link findings with improvement plans and how quality teams operate in real time. Hospital workflow management and quality tools concepts were useful.
Gaps identified on the working area.	Overall time flow is impacted by some dialysis patients who continue to arrive too early or too late. There were also reports of technician movement between departments and staffing shortages.
Suggestions for improvement	Increase the strictness of patient batch scheduling and raise awareness of appropriate arrival times.
Plan for the next week	Complete the AKD project and prepare to begin my minor project.

Week 8

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre

Area/ Department/ Project of Summer Internship Program: Quality Department

Name of the Student: Parth Bharat Solanki

Roll no: 2094 Stream: HM B

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

Activity Done	Wrapped up the final stages of the AKD project. Started working on a small project pertaining to pharmacy delays in patient discharge on July 4. Started keeping track of how long it takes the pharmacy to respond to requests for medication returns that are started by the nurse.
Linking theory (Classroom learning) with practice at your organisation	Recognized the value of efficient discharge procedures and the impact that backend delays can have on the patient experience. applied what was learned in class about discharge planning and hospital process flow.
Gaps identified on the working area.	There was no set time for the pharmacy to reply to return requests, and discharges weren't scheduled beforehand.
Suggestions for improvement	Assign pharmacy employees to shifts and begin processing return requests earlier.
Plan for the next week	Finish gathering data for the minor project and begin spotting patterns in delays.

Week 9

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre

Area/ Department/ Project of Summer Internship Program: Quality Department

Name of the Student: Parth Bharat Solanki

Roll no: 2094 Stream: HM B

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

Activity Done	I continued to work on my minor project about discharge delays at pharmacies. Data collection and arrangement are complete. I started working on my final presentation after talking over the results with my mentor. Discussed with various teams to obtain information about pharmacy and discharge procedures.
Linking theory (Classroom learning) with practice at your organisation	I put my knowledge of quality improvement and hospital discharge planning to use. Recognized the importance of departmental communication in ensuring a seamless patient discharge.
Gaps identified on the working area.	Return requests from pharmacies during night shifts were frequently not processed promptly. Due to poor preparation, unplanned discharges resulted in additional delays.
Suggestions for improvement	Establish a standard response time for pharmacy acknowledgment and, if at all possible, plan discharges early.
Plan for the next week	Complete the presentation and give it to the hospital's management. Finalize the paperwork for the internship.

Week 10

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre

Area/ Department/ Project of Summer Internship Program: Quality Department

Name of the Student: Parth Bharat Solanki

Roll no: 2094 Stream: HM B

Week no: 10 From: 14th July to 15th July

Activity Done	I presented the results of my two projects, AKD Dialysis Waiting Time and Pharmacy-Related Discharge Delays, in my final presentation to the hospital's COO and senior leaders on July 14. I formally finished my internship on July 15. Additionally, I sent the Quality Team all of my data, analyses, and presentations. I took a moment to express my gratitude to the hospital staff and mentors who helped me during my internship.
Linking theory (Classroom learning) with practice at your organisation	My confidence in presenting actual hospital problems and workable solutions increased as a result of classroom presentations. Additionally, I acquired practical experience in creating official submissions and professionally wrapping up a high-caliber project.
Gaps identified on the working area.	This week, no new gaps were found.
Suggestions for improvement	N/A (All project work and handovers have been finished)
Plan for the next week	The internship is over. I intend to finish my final report and get ready for college.

Complied Report

Name of the Organisation: P. D. Hinduja Hospital and Medical Research Centre
Area/ Department/ Project of Summer Internship Program: Quality Department
Name of the Student: Parth Bharat Solanki
Roll no: 2094 Stream: HM B

Activity Done	• **Project 1 – Patient Waiting Time in AKD Dialysis Unit:** Observed and documented 107 patients' and more than 1400 sessions' worth of delayed dialysis start times. determined the underlying causes, which included scheduling issues, technician shortages, early and late arrivals, and more. Suggested process enhancements include system-based scheduling, buffer time between sessions, and improved patient communication. • **Project 2 – Pharmacy-Related Delays in Discharge:** Examined the interval between 22 inpatients' return requests and the pharmacy's acknowledgement. Gaps were found, including delayed processing at night, uneven response times, and a lack of shift accountability. Proposed enhancements include digital tracking, establishing a standard response time, and initiating requests early. • **Data Collection & Coordination:** Daily data entries were kept up to date, nursing and technician records were examined, observations were manually verified, and consistency between sources was guaranteed. arranged for updates and clarifications in coordination with the clinical staff and quality team. • **Final Presentation & Reporting:** Prepared and presented project findings to the hospital COO and leadership. On the final day of the internship, all project data, analysis, and files were turned in to the Quality Team.
Linking theory (Classroom learning) with practice at your organisation	• **Quality Tools & Hospital Workflow**: Used ideas from quality management courses, such as time-motion analysis, root cause analysis, and service delivery gaps. • **Presentation & Communication**: The confidence required to successfully present project to hospital leadership was strengthened by classroom presentations.

	• **Healthcare Operations & Discharge Planning:** Understood how dialysis units handle real-time workflow and how patient discharge is impacted by backend delays. • **Project Coordination:** During the stages of documentation, analysis, and submission, project planning and data organization were used. • **Excel & Data Handling:** Compiled, sorted, and produced charts using Excel tools to aid in analysis.
Gaps identified on the working area.	• **Patient Timing Issues**: An imbalance in schedule and overcrowding in the dialysis unit resulted from many patients arriving too early or too late. • **Technician Allocation**: Understaffed shifts and delays resulted from frequent cross-departmental assignments. • **Pharmacy Delays:** Inconsistent timing of pharmacy return acknowledgment, particularly during unscheduled discharges or night shifts. • **Documentation:** Data verification was slowed down and time tracking was challenging with handwritten registers. • **Discharge Communication:** In certain instances, there was insufficient coordination between nurses and pharmacy personnel to process returns in a timely manner.
Suggestions for improvement	• **Patient Education** Provide SMS reminders for appointment times and advise patients on the best time to arrive. • **Digital Tools**: For dialysis and return requests, make use of digital check-in tools and system-based scheduling. • **Shift Planning:** During dialysis hours, minimize inter-unit assignments and make sure there is adequate technician coverage. • **Process Standardization:** Implement checklist-based discharge tracking and set fixed turnaround times for pharmacy acknowledgment. • **Better Coordination:** For real-time status updates between nurses, ward clerks, and pharmacy employees, use group messaging apps like WhatsApp.