SUMMER INTERNSHIP PROGRAM

at

Apollo Speciality Hospital, Jayanagar, Bangalore

From 12th May 2025 to 23rd July 2025

A REPORT BY

Dr. Shreya Makkar

Master of Business Administration

(Hospital And Health Management)

Roll no. 2087

2024-26

under the Mentorship of

Dr. Piyusha Majumdar (Associate Professor)

IIHMR UNIVERSITY

Apollo HOSPITALS
TOUCHING LIVES

23rd July 2025

INTERNSHIP CERTIFICATE

This is to certify that **Dr. Shreya Makkar** has successfully completed her **Internship** in the Department of **Quality** from **12th May 2025** to **23rd July 2025** in **Apollo Speciality Hospitals, Jayanagar, Bangalore**. She was diligently involved in the task assigned to her. During this period, we found her to be punctual, responsible, sincere and hard working.

We wish her all the best for her future endeavours.

For Apollo Speciality Hospitals, Jayanagar, Bangalore.

APOLLO HOSPITALS BANGALORE

Korivi Chennaiah
HR -Manager

Apollo Speciality Hospital, Jayanagar
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To book appointments or Consult doctors online, visit www.askapollo.com

IIHMR UNIVERSITY

IIHMR University Faculty Mentor Approval

This is to certify that **Dr. Shreya Makkar** 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.

Piyusha

Date: 28/07/2025

(Signature of Faculty Mentor)

Name: Dr Piyusha Majumdar

Designation: Associate Professor

A study of operation theatre utilization rate in Apollo Hospital, Jayanagar, Bangalore

Presented by : Dr Shreya Makkar (HM-29)
Roll no. 2087

University Mentor: Dr. Piyusha Majumdar
Organization Mentor: Ms. Pragati Patil

About the Hospital

Apollo Specialty Hospital, Jayanagar is a 150-bedded super-specialty centre with advanced OTs, ICUs, and emergency care. It excels in Orthopedics, Neurosciences, and Critical Care, serving over 250 OPD patients daily.

Vision

To make India a global healthcare destination and "Touch a Billion Lives".

Mission

To bring healthcare of international standards within reach of every individual

Organization structure

Introduction

Operation Theatres are critical to both patient outcomes and hospital revenue. However, delays, idle time, and inefficiencies often reduce their productivity.

Aim

To analyze the utilization of Operation Theatres at Apollo Speciality Hospital, Jayanagar, identify key delay factors, and improve overall efficiency

Objectives

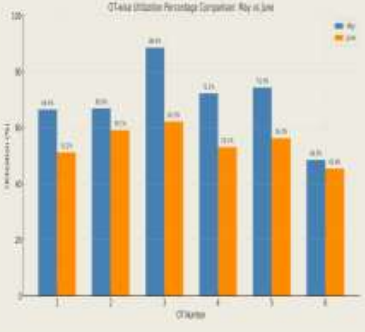
- Calculate overall OT utilization percentage
- Determine cancellation and rescheduling rates
- Analyze the share of additional surgeries
- Recommend improvements for readiness and idle time reduction

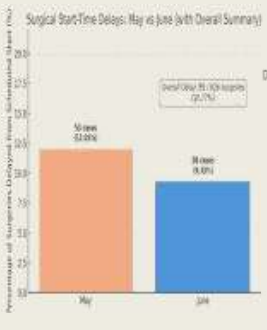
Methodology

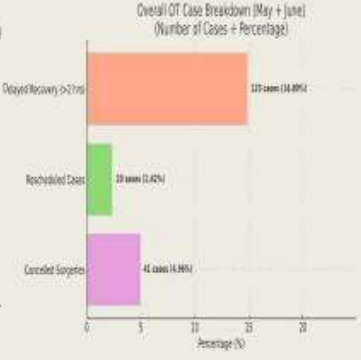
Period: May and June 2025
Sample: 826 surgeries across 6 OTs
Working Days: 52
Data Points: OT timings, departments, surgeons, delays ,cancellations, reschedules, additional cases

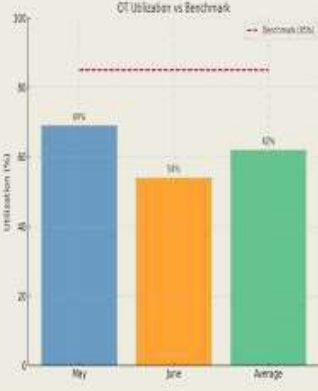
Utilization metrics and formula

Total OT Time Available = No. of OTs × 720 min/day × Working Days = 6 × 720 × 52 = 224,640 min
Total OT Time Used (including cleaning) = 139,278 min
OT Utilization % = (139,278 ÷ 224,640) × 100 = 62.00%









Difference between practical exposure and theoritical understanding

- Understood how hospital operations require constant coordination between departments
- Realized delays are not just numbers—they directly impact patients and staff morale
- Learned to adapt quickly in real-time situations where ideal protocols may not apply
- Gained exposure to actual challenges like OT scheduling, bed shortages, and emergency adjustments
- Saw the real impact of teamwork, communication gaps, and system flow on hospital outcomes

Strengths:
- Trusted Apollo brand with NABH accreditation
- Advanced infrastructure and super-speciality care
- High OPD footfall (~250+ daily) and experienced clinical staff

Weakness:
- Dependency on select consultants
- Manual documentation delays insight generation
- Limited digital automation in OT scheduling and data capture
- Dependence on physical records for certain OT processes

Opportunities:
- Potential for medical tourism and tie-ups
- Scope to implement automated OT utilization dashboards
- Use data insights to improve surgeon-wise scheduling efficiency
- Adoption of real-time monitoring systems for delays and cancellations

Threats:
- Competition from top hospitals
- Rising operational costs
- Staffing and compliance challenges
- Delayed surgeries can impact patient satisfaction and hospital reputation
- Staff shortages or unplanned emergencies may disrupt OT plans
- Competitive healthcare market with emphasis on efficiency

Key Findings

Surgeries Performed: 826
- Cancelled Cases: 41 → 4.96%
- Rescheduled Cases: 20 → 2.42%
- Delayed Recovery (>2 hrs): 123 → 14.89%
- Start-Time Delay Cases: 89 → 10.77%
- Additional Cases: 246 → ~30% of total
- Total OT Utilization: 62%

Challenges faced

- Incomplete or inconsistent data entries delayed initial analysis
- Manual extraction of delays and additional cases required extra validation
- Coordinating multiple data sources (OT schedule, surgeon info, recovery logs) was time-consuming
- Limited visibility into reasons for cancellations or delays reduced depth of root cause analysis
- Handling large dataset while maintaining accuracy and visual clarity was demanding

Conclusion

The OT utilization at Apollo Jayanagar stands at 62%, with considerable delays due to recovery and late starts. While efficiency is moderate, focused improvements in scheduling, pre-op readiness, and resource coordination can significantly enhance utilization and patient care.

Recommendations

- Pre-anesthesia & transport coordination to minimize recovery hold-ups
- Track delay reasons systematically
- Schedule buffer time for complex surgeries.

Name of the Organisation: Apollo Specialty Hospital, Jayanagar, Bangalore

Area/ Department/ Project of Summer Internship Program: Quality

Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Week no: 1 **From:** 12/5/25 to 18/5/25

Activity Done	• The orientation program, which included a hospital walkthrough and departmental introductions, helping me understand the organizational structure and functions. • Preliminary sorting and review of OT data for April, to grasp the flow and structure of surgeries, timings, delays, and utilization trends. This groundwork was essential to understand the scope of the OT Utilization Project. • Celebration of International Nurses Day where I contributed to organizing and coordinating activities like badge distribution, appreciation notes, and games to honor the nursing staff.
Linking theory (Classroom learning) with practice at your organisation	• The orientation helped link hospital administration and structure theories with real-world workflows. • Sorting OT data enabled the application of Health Information ManagementandOperations Research concepts to interpret schedules, delays, and caseloads. • The Nurses Day celebration allowed me to experience HR functions and event planning within a hospital context — aligning well with classroom lessons on employee engagement and healthcare leadership.
Gaps identified on the working area.	• OT data for April was available but not uniformlyorganized, with missing or unclear entries. • Lack of a centralized data dashboard, making it harder to analyze multiple months together. • Nurse engagement events were appreciated, but employee appreciation mechanisms were informal and inconsistent**.**

Suggestions for improvement	• Create a standard data entry template for OT scheduling and delays to enable cleaner analysis. • Introduce a simple visualization dashboard using Excel or Power BI for real-time usage insights. • Institutionalize anursing appreciation calendar with monthly engagement activities to keep morale high.
Plan for the next week	• Preparing of OT utilization excel sheet. • Planning of activities to be conducted for hand hygiene month.

Signature of the Student

SHREYA

Name of the Organisation: Apollo Specialty Hospital, Jayanagar, Bangalore

Area/ Department/ Project of Summer Internship Program: Quality

Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Week no: 2 **From:** 19/5/2025 to 24/5/2025

Activity Done	• Daily Data collection for OT utilisation project. • Data collection from January to April from MRD for clinical pathway of stroke project. • Data analysis for stroke clinical pathway. • OP pharmacy audit. • Dialysis department audit. • IP pharmacy audit. • IPD file auditing. • Visit to CSSD department. • Team participation in creating a poster for hand hygiene month (Awarded 3rd prize).

Linking theory (Classroom learning) with practice at your organisation	• OT utilization project based on lean management framework. • Conducted audits in OP, IP, Pharmacy, dialysis and IPD files review using checklist, reflecting practical application of NABH and quality management. • Developed understanding of clinical pathway model through involvement in stroke clinical pathway project. • Creating an IEC material for hand hygiene month which related to module of business communication. (concepts like awareness, strategies, patienteducation, communication). • Data analysis for OT utilization and stroke clinical pathway. concepts like data collection tools, excel based analysis. • Practical understanding of CSSD workflows and sterilization protocols related to support services in essentials of hospital service module.
Gaps identified on the working area.	• For OT –utilization -Differences between scheduled surgery time and actual start time. • Frequent delays. • Missing data on reasons for surgery cancellation and delays. • For audits -Noncompliance with pharmacy like HAZMAT cupboards were not locked, lobby was cluttered, few of bills were not signed. • IPD file documentation standards –nurse progress notes were missing in few files; vital chart of patient was not updated in few files. • For clinical pathway for stroke -Low staff awareness about stroke clinical pathway and its importance • For CSSD – not proper demarcation between clean and dirty zones increasing risk of contamination • Positioning of CSSD- CSSD is at basement and should be placed near OT which is at 5^{th} floor of same building. • Some staff not using PPE correctly. • Need for structured formats for data collection across different departments.

Suggestions for improvement	• For OT utilization – implement a mandatory delay reason checklist to be filled by surgeons or in charge after each procedure. • Conduct weekly OT review meeting to address recurring delay patterns and improve coordination between departments. • For clinical pathway of stroke – a digital record can be there to prompt consultants about thrombolysis window. • A checklist can be there for stroke at admission to standardize assessment. • For audits- a monthly feedback session with respective departments to share audit findings and corrective measures can be taken. • Can develop a scoring system for audit to track department wise compliance trends. • For CSSD- can establish a tagging and tracking by introducing barcodes for trust and traceability.
Plan for the next week	• Continue with audits. • Continue with OTutilization project.

Signature of the Student

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Area/ Department/ Project of Summer Internship Program: Quality

Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Week no: 3 **From:** 26/5/2025 to 31/5/2025

Activity Done	• Continued systematic observation and data gathering for OT utilization study. • Data Sorting and Categorization –Organized and categorized raw data for better analysis, prepared excel sheets for better analysis. • Fire Mock Drill- participated in fire mock drill in basement area, including diesel storage area, LMO area and control panel. • Involved in fire mock drill in OT recovery to ensure preparedness for emergencies. • Radiology department audit - assisted in auditing radiology department using NABH based checklist, contributing to quality and compliance assessment. • Open forum participation - participated in open forum session and received appreciation for hand hygiene month participation. • Assisting in project adherence to admission and discharge– Supported the team in reviewing adherence to admission and discharge criteria. • Collected data from MRD for April month.
Linking theory (Classroom learning) with practice at your organisation	• OT utilization project based on lean management framework. • Conducted audits in IPD, radiology, dialysis checklist, reflecting practical application of NABH and quality management. • Fire mock drills – hospital safety standards, and chapter of disaster preparedness.

Gaps identified on the working area.	• Inconsistent documentation of surgery starts time and delay reason. • For audits –minor nonconformities in documentation and checklist usage like non monitoring of temperature. • For clinical pathway for stroke -Low staff awareness about stroke clinical pathway and its importance • For fire safety – Some confusion among staff during mock drills roles and response time. • Delay in patient evacuation. • Ambulance was not called to be ready. • Admission and Discharge Process- Incomplete record in some files, variation in criteria interpretation by departments. • Need for structured formats for data collection across different departments. • Gaps in cross department communication observed during forum and drills.
Suggestions for improvement	• For OT utilization – implement a mandatory delay reason checklist to be filled by surgeons or in charge after each procedure. • Conduct weekly OT review meeting to address recurring delay patterns and improve coordination between departments. • Implement a digital OT dashboard enforce on time first case start. • For fire safety- Conduct training on roles and responsibilities; mark evacuation zones clearly • For audits- a monthly feedback session with respective departments to share audit findings and corrective measures can be taken. • Regular internal audits: checklist training for staff • Can assign audit champion in each dept. • Can develop a scoring system for audit to track department wise compliance trends. • For admission /discharge audit – Standardize documentation formats: training on NABH criteria for admission and discharge.

Plan for the next week	• Continue with OT utilization project. • Continue with audits. • Assist in fire drill evacuation report. • Continue observing admission and discharge practices.

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Area/ Department/ Project of Summer Internship Program: Quality

Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Week no: 4 **From:** 2/6/25 to 7/6/25

Activity Done	• Continued systematic observation and data gathering for OT utilization study. • Data Sorting and Categorization –Organized and categorized raw data for better analysis ,prepared excel sheets for better analysis. • Assisting in project adherence to admission and discharge– Supported the team in reviewing adherence to admission and discharge criteria. • Collected data from MRD for May month. • Continue with audits.
Linking theory (Classroom learning) with practice at your organisation	• OT utilization project based on lean management framework. • Conducted audits in IPD, radiology, dialysis checklist, reflecting practical application of NABH and quality management.
Gaps identified on the working area.	• Inconsistent documentation of surgery starts time and delay reason. • For audits –minor nonconformities in documentation and checklist usage like non monitoring of temperature. • For clinical pathway for stroke -Low staff awareness about stroke clinical pathway and its importance • Admission and Discharge Process- Incomplete record in some files, variation in criteria interpretation by departments. • Need for structured formats for data collection across different departments.

Suggestions for improvement	• For OT utilization – implement a mandatory delay reason checklist to be filled by surgeons or in charge after each procedure. • Conduct weekly OT review meeting to address recurring delay patterns and improve coordination between departments. • Implement a digital OT dashboard enforce on time. first case start. • For audits- a monthly feedback session with respective departments to share audit findings and corrective measures can be taken. • Regular internal audits: checklist training for staff. • Can assign audit champion in each dept. • Can develop a scoring system for audit to track department wise compliance trends. • For admission /discharge audit – Standardize documentation formats: training on NABH criteria for admission and discharge.
Plan for the next week	• Continue with OT utilization project. • Continue with audits. • Planning of activities to be done for fire safety week.

Signature of the Student

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Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Week no:5 **From:** 7/6/25 to 14/6/25

Activity Done	• Daily data collection for OT utilization project – Continued systematic observation and data gathering for OT utilization study. • Data Sorting and Categorization –Organized and categorized raw data for better analysis, prepared excel sheets for better analysis. • Assisting in project to ensure that admission and discharge criteria in ICU is being fulfilled – Supported the team in reviewingthe project. • Collecting real time data for June month. • Started with the first chapter implementation of NABH digital guidelines. • Auditing in IPD and ICU. • Conducted and organised programme for fire safety in hospital. • Collected and arranged data on project usage of blood components in accordance to clinical guidelines.

Linking theory (Classroom learning) with practice at your organisation	• OT utilization project based on a lean management framework. • Conducted audits in IPD, radiology, dialysis checklist, reflecting practical application of NABH and quality management. • Used concepts of NABH standards to understand and assist in adherence to admission and discharge criteria. • Learning from hospital safety and disaster management to organize fire safety activities.
Gaps identified on the working area.	• For OT –utilization -Differences between scheduled surgery time and actual start time. • Frequent delays. • Missing data on reasons for surgery cancellation and delays. • Missing data on the scheduled time of surgery. • No fixed procedure to schedule a surgery. • Delays in the first case start. • Unstructured data. • Admission and Discharge Process- Incomplete record in some files , variation in criteria interpretation by departments. • Need for structured formats for data collection across different departments. • Less awareness among staff regarding NABH digital implementation processes. • Incomplete documentation regarding the usage of blood components.

Suggestions for improvement	• For OT utilization, implement a mandatory delay reason checklist to be filled by surgeons or in-charge after each procedure. • Conduct weekly OT review meetings to address recurring delay patterns and improve coordination between departments. • Implement a digital OT dashboard to enforce on-time first case start. • For admission /discharge audit – Standardize documentation formats: training on NABH criteria for admission and discharge. • Introduction digital tracking for real time data monitoring and reduce manual errors.
Plan for the next week	• Continue with daily audits, daily data collection for OT, planning of activities to be done for fire safety month, work on digitization for smooth data, assist in training session for NABH awareness, coordinate for upcoming fire safety drill and documentation.

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Area/ Department/ Project of Summer Internship Program: Quality

Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Week no:6 **From:** 16/6/25 to 21/6/25

Activity Done	• Daily data collection for OT utilization project – Continued systematic observation and data gathering for OT utilization study. • Data Sorting and Categorization –Organized and categorized raw data for better analysis, prepared excel sheets for better analysis. • Assisting in project to ensure that admission and discharge criteria in ICU is being fulfilled– Supported the team in reviewing the project. • Collecting real time data for June month. • completed 1st chapter- access, assessment, and continuity of care and 6th chapter finance and procurement management implementation of NABH digital guidelines. • working on IMS information management system • Auditing in IPD and ICU, Cath lab, endoscopy, physiotherapy. • Conducted and participated as a team in fire mock drill. • Collected and arranged data on project usage of blood components in accordance to clinical guidelines.

Linking theory (Classroom learning) with practice at your organisation	• OT utilization project based on a lean management framework. • Conducted audits in IPD, radiology, dialysis checklist, reflecting practical application of NABH and quality management. • Used concepts of NABH standards to understand and assist in project for ensuring admission and discharge criteria. • Learning from hospital safety and disaster management to organize fire safety activities. • Learning practical implementation of NABH digital guidelines.
Gaps identified on the working area.	• For OT –utilization -Differences between scheduled surgery time and actual start time. • Frequent delays. • Missing data on reasons for surgery cancellation and delays. • Missing data on the scheduled time of surgery. • No fixed procedure to schedule a surgery. • Delays in the first case start. • Unstructured data. • Admission and Discharge Process- Incomplete record in some files, variation in criteria interpretation by departments. • Need for structured formats for data collection across different departments. • Less awareness among staff regarding NABH digital implementation processes. • Incomplete documentation regarding the usage of blood components.

Suggestions for improvement	• For OT utilization, implement a mandatory delay reason checklist to be filled by surgeons or in-charge after each procedure. • Conduct weekly OT review meetings to address recurring delay patterns and improve coordination between departments. • Implement a digital OT dashboard to enforce on-time first case start. • For admission /discharge audit – Standardize documentation formats: training on NABH criteria for admission and discharge. • Introduction digital tracking for real time data monitoring and reduce manual errors.
Plan for the next week	• Continue with daily audits, daily data collection for OT, planning of activities to be done for fire safety month, work on digitization for smooth data, assist in training session for NABH awareness, coordinate for upcoming fire safety interactive session and documentation.

Signature of the Student

SHREYA

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Area/ Department/ Project of Summer Internship Program: Quality

Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Week no:7 **From:** 23/6/25 to 28/6/25

Activity Done	• Daily data collection for OT utilization project – Continued systematic observation and data gathering for OT utilization study. • Data Sorting and Categorization –Organized and categorized raw data for better analysis, prepared excel sheets for better analysis. • Assisting in project to ensure that admission and discharge criteria in ICU is being fulfilled– Supported the team in reviewing the project. • Collecting real time data for June month. • completed chapter information management system of NABH digital guidelines. • conducted quiz on fire safety and winners are awarded in open forum. • Auditing in ICU. • Collected and arranged data on project usage of blood components in accordance to clinical guidelines.

Linking theory (Classroom learning) with practice at your organisation	• OT utilization project based on a lean management framework. • Conducted audits in IPD, radiology, dialysis checklist, reflecting practical application of NABH and quality management. • Used concepts of NABH standards to understand and assist in adherence to admission and discharge criteria. • Learning from hospital safety and disastermanagement to organize fire safety activities. • Learning practical implementation of NABH digital guidelines.
Gaps identified on the working area.	• For OT –utilization -Differences between scheduled surgery time and actual start time. • Frequent delays. • Missing data on reasons for surgery cancellation and delays. • Missing data on the scheduled time of surgery. • No fixed procedure to schedule a surgery. • Delays in the first case start. • Unstructured data. • Admission and Discharge Process- Incomplete record in some files , variation in criteria interpretation by departments. • In ICU many medicines were not labelled, CSSD cupboard was not maintained • Incomplete documentation in files and stop orders of medicines are not written properly. • Need for structured formats for data collection across different departments. • Less awareness among staff regarding NABH digital implementation processes. • Incomplete documentation regarding the usage of blood components.

Suggestions for improvement	• For OT utilization, implement a mandatory delay reason checklist to be filled by surgeons or in-charge after each procedure. • Conduct weekly OT review meetings to address recurring delay patterns and improve coordination between departments. • Implement a digital OT dashboard to enforce on-time first case start. • For admission /discharge audit – Standardize documentation formats: training on NABH criteria for admission and discharge. • Introduction digital tracking for real time data monitoring and reduce manual errors.
Plan for the next week	• Continue with daily audits, daily data collection for OT, planning of activities to be done for hospital safety month, work on digitization for smooth data, assist in training session for NABH awareness, coordinate for upcoming hospital safety month.

Signature of the Student

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Area/ Department/ Project of Summer Internship Program: Quality

Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Week no: 8 **From:** 1/7/25 to 5/7/25

Activity Done	• Daily data collection for OT utilization project – Continued systematic observation and data gathering for OT utilization study. • Data Sorting and Categorization –Organized and categorized raw data for better analysis, prepared excel sheets for better analysis. • Participated and volunteer in blood donation camp. • completed chapter financial procurement of NABH digital guidelines. • Conducted survey on hospital safety culture. • Continued auditing in different departments. • Collected and arranged data on project usage of blood components in accordance to clinical guidelines.
Linking theory (Classroom learning) with practice at your organisation	• OT utilization project based on a lean management framework. • Conducted audits in IPD, radiology, dialysis checklist, reflecting practical application of NABH and quality management. • Used concepts of NABH standards to understand and assist in adherence to admission and discharge criteria. • Learning practical implementation of NABH digital guidelines.

Gaps identified on the working area.	• For OT –utilization -Differences between scheduled surgery time and actual start time. • Frequent delays. • Missing data on reasons for surgery cancellation and delays. • Missing data on the scheduled time of surgery. • No fixed procedure to schedule a surgery. • Delays in the first case start. • Unstructured data. • Admission and Discharge Process- Incomplete record in some files , variation in criteria interpretation by departments. • In ICU many medicines were not labelled, CSSD cupboard was not maintained. • Incomplete documentation in files and stop orders of medicines are not written properly. • Need for structured formats for data collection across different departments. • Less awareness among staff regarding NABH digital implementation processes. • Incomplete documentation regarding the usage of blood components.
Suggestions for improvement	• <u>For OT utilization</u>, implement a mandatory delay reason checklist to be filled by surgeons or in-charge after each procedure. • Conduct weekly OT review meetings to address recurring delay patterns and improve coordination between departments. • Implement a digital OT dashboard to enforce on-time first case start. • For admission /discharge audit – Standardize documentation formats: training on NABH criteria for admission and discharge. • Introduction digital tracking for real time data monitoring and reduce manual errors.

Plan for the next week	• Continue with daily audits, daily data collection for OT, planning of activities to be done for hospital safety month, work on digitization for smooth data, assist in training session for NABH awareness, coordinate for upcoming hospital safety month.

Signature of the Student

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Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Week no:9 **From:** 7/7/25 to 12/7/25

Activity Done	• Data Sorting and Categorization –Organized and categorized raw data for better analysis, prepared excel sheets for better analysis. • Participated and volunteer in health checkup camp in corporate company. • Preparation of the activities to be conducted next week for hospital safety culture. • Continued auditing in different departments. • Analysed two clinical pathway audits.
Linking theory (Classroom learning) with practice at your organisation	• OT utilization project based on a lean management framework. • Practical approach to handle patients ,crowd and managing all support services at camp. • Learning guidelines of NABH through auditing.

Gaps identified on the working area.	• For OT –utilization -Differences between scheduled surgery time and actual start time. • Frequent delays. • Missing data on reasons for surgery cancellation and delays. • Missing data on the scheduled time of surgery. • No fixed procedure to schedule a surgery. • Delays in the first case start. • Unstructured data. • Not planned health checkup: like less no. of files, investigation room was on different floor, proper queue management was not there. • Incomplete documentation in files and stop orders of medicines are not written properly. • Need for structured formats for data collection across different departments.
Suggestions for improvement	• For OT utilization, implement a mandatory delay reason checklist to be filled by surgeons or in-charge after each procedure. • Conduct weekly OT review meetings to address recurring delay patterns and improve coordination between departments. • Implement a digital OT dashboard to enforce on-time first case start. • Introduction digital tracking for real time data monitoring and reduce manual errors.
Plan for the next week	• Continue with daily audits, Activities to be done for hospital safety month, work on digitization for smooth data, assist in training session for NABH awareness, coordinate for upcoming hospital safety month.

Signature of the Student

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Name of the Organisation: Apollo Specialty Hospital, Jayanagar, Bangalore

Area/ Department/ Project of Summer Internship Program: Quality

Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Week no:10 **From:** 13/7/25 to 19/7/25

Activity Done	Conducted a detailed analysis of Operation Theatre (OT) utilization data to extract meaningful insights regarding usage patterns, idle time, delays, and department-wise efficiency. In addition to the analysis, I actively participated in organizing multiple initiatives for Employee Safety Month**,** including: • A safety-themed quiz competition. • An engaging treasure hunt. • A role-play session on emergency response. • Creation of a selfie booth and slogan wall. • Facilitating a pledge wall where employees committed to workplace safety practices. .
Linking theory (Classroom learning) with practice at your organisation	• Hospital Operations Managementfor analyzing OT scheduling and resource utilization. • Quality and Patient Safetyto understand the impact of delays and cancellations. • HR and OrganizationalBehavior through employee engagement activities.

Gaps identified on the working area.	• For OT –utilization -Differences between scheduled surgery time and actual start time. • Frequent delays. • Missing data on reasons for surgery cancellation and delays. • Missing data on the scheduled time of surgery. • No fixed procedure to schedule a surgery. • Delays inthe first case start. • Unstructured data. • Underutilization of OT time, particularly in the second half of the day. • Delayed turnovers due to extended recovery periods and late starts. • Limited digital systems for real-time OT scheduling and tracking. • Employee participation in safety activities was high, but reinforcement mechanisms were lacking.
Suggestions for improvement	• For OT utilization, implement a mandatory delay reason checklist to be filled by surgeons or in-charge after each procedure. • Conduct weekly OT review meetings to address recurring delay patterns and improve coordination between departments. • Implement a digital OT dashboard to enforce on-time first case start. • Introduce a real-time OT dashboard with utilization tracking. • Standardize cleaning and prep times to reduce idle periods. • Develop alerts for case delays and overstay in recovery rooms. • Institutionalize monthly employee engagement activities to build continuous safety culture.

Plan for the next week	• Finalize and format the OT utilization report and poster. • Continue collecting data on surgical delays and recovery room overstay. • Assist in preparing documentation for NABH compliance. • Conduct feedback sessions for Employee Safety Month and compile a summary report.

Signature of the Student

SHREYA

FINAL REPORT

Name of the Organisation: Apollo Specialty Hospital, Jayanagar, Bangalore

Area/ Department/ Project of Summer Internship Program: Quality

Name of the Student: Shreya Makkar

Roll no: 2087 **Stream: MBA Hospital and Health Management**

Activity Done	• Participated in orientation, hospital walkthroughs, and department introductions. • Conducted and analyzed Operation Theatre (OT) utilization data from January to June. • Performed audits in various departments: IPD, OPD, Pharmacy, ICU, CSSD, Dialysis, Radiology, Cath Lab, Endoscopy, Physiotherapy. • Participated in celebration of International Nurses Day. • Supported Employee Safety Month events including quizzes, roleplays, treasure hunts, slogan walls, and pledge booths. • Assisted in preparing and organizing fire mock drills and safety awareness campaigns. • Participated in health check-up and blood donation camps. • Conducted surveys on hospital safety culture and feedback collection. • Contributed to NABH digital guideline implementation: Chapters 1 (Access, Assessment, Continuity of Care), 6 (Finance and Procurement), and IMS (Information Management System). • Assisted in projects related to adherence to admission and discharge protocols. • Analyzed stroke clinical pathway and two clinical pathway audits. • Created and presented educational materials for Hand Hygiene Month (awarded 3rd prize). • Organized and categorized raw data for easier analysis. • Created dashboards and excel models for OT and stroke project tracking.

Linking theory (Classroom learning) with practice at your organisation	• Applied Lean Management principles through the OT utilization study. • NABH Quality Standards used in IPD, ICU, and Pharmacy audits. • Disaster Management modules implemented through mock drills and emergency preparedness. • Employee engagement activities linked to HR and Organizational Behavior learnings. • Used classroom concepts in Business Communication to design IEC materials and safety awareness tools. • Gained exposure to Clinical Pathway frameworks during the Stroke Pathway audit. • Developed working knowledge of NABH digital guideline implementation. • Demonstrated use of data collection tools and Excel-based analysis aligned with classroom analytics modules.
Gaps identified on the working area.	• OT documentation gaps: missing reasons for delays/cancellations, late starts, inconsistent scheduling. • Incomplete or improper record-keeping in IPD files, including vital signs and nursing notes. • Lack of standardized formats for audits, admissions, discharge, and clinical pathway data. • Pharmacy and CSSD non-compliances: unsecured HAZMAT storage, unlabeled medicines, cluttered lobbies. • Fire safety drill roles and zones not clearly understood, delayed evacuations. • Low staff awareness of NABH digital implementation and stroke pathway relevance. • Lack of real-time dashboards or digital tracking mechanisms. • Inconsistencies in hospital safety camp execution—missing files, poor queue management. • Incomplete documentation in blood component utilization. • Gaps in interdepartmental coordination during drills and open forums.

Suggestions for improvement	• Develop a standard delay-reason checklist for OT and enforce mandatory entry. • Introduce digital dashboards for OT scheduling, start-time tracking, and utilization analytics. • Weekly OT review meetings to identify delay trends and coordinate across teams. • Conduct audit feedback sessions monthly and assign audit champions per department. • Create a scoring system for audit compliance trends. • Standardize formats for admission/discharge documentation and provide related staff training. • Conduct NABH awareness sessions and encourage participation in digital guideline rollout. • Institutionalize safety and appreciation activities (Nurses Day, Employee Safety Month). • Use barcode/tagging for CSSD traceability. • Improve planning of outreach events with file tracking, spatial arrangements, and queue flow management.
Plan for the next week	• Finalized OT utilization report and poster. • Continued feedback collection and summarized Employee Safety Month activities. • Supported NABH compliance documentation. • Helped draft and deliver summaries of safety campaigns and digitization suggestions.

Signature of the Student

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