SUMMER INTERNSHIP PROGRAM

AT

MAX NANAVATI HOSPITAL, MUMBAI

FROM 12 MAY 2025 TO 19 JULY 2025

A REPORT BY

BUDDHBHUSHAN MUKUND THORAT

Master of Business Administration -MBA IN HOSPITAL AND HEALTH MANAGEMENT

Roll no-2104

2024-26

Under the Mentorship of

VIDYA BHUSHAN TRIPATHI

Assistant Professor

NANAVATI MAX Super Speciality Hospital

BNH/HR/2025/07/

19-Jul-25

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Buddhbhushan Mukund Thorat**, student of **IIHMR University**, has successfully completed his internship at our hospital from **12-May-25 to 19-Jul-25** in the Department of **Medical Administration** of this hospital.

During this period, he worked under the guidance of the esteemed team from the **Medical Administration** Department, led by **Dr. Pushkar Vishnudas Mehta, Medical Superintendent**.

This certificate is being issued to meet the requirements of the IIHMR University.

We wish him all the best for his future endeavors.

For Dr. Balabhai Nanavati Hospital

Somanath Sahu
Deputy General Manager – HR

Dr.Pushkar Vishnudas Mehta
Medical Superintendent

Department of Human Resources
Swami Vivekanand Rd.,
Vile Parle (W),
Mumbai - 56.
Dr. Balabhai Nanavati Hospital

Dr. Balabhai Nanavati Hospital (Charitable)
S. V. Road, Vile Parle (W), Mumbai 400 056
Tel: +91 22 2626 7500
Managed by Max Hospitals and Allied Services Limited
www.nanavatimaxhospital.org

IIHMR UNIVERSITY

IIHMR University Faculty Mentor Approval

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

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

28/07/2025

Date:

Dr. Vidya Bhushan Tripathi
Assistant Professor

IIHMR UNIVERSITY

SUMMER INTERNSHIP PROGRAM

NANAVATI MAX Super Speciality Hospital

NANAVATI MAX SUPER SPECTALITY HOSPITAL MUMBAI

A STUDY ON TURNAROUND TIME IN OPERATION THETARE

Presented By : Buddhbhushan Throat
Org Mentor : Dr Pushkar Mehta , University Mentor : Dr. Vidya Bhushan Tripathi

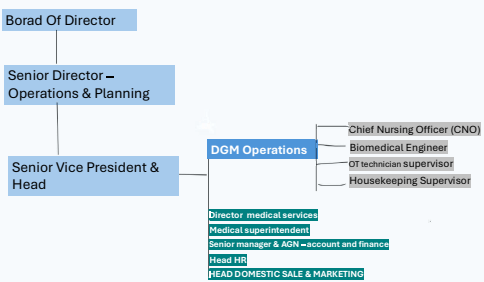
1. HISTORY

Dr. Balabhai Nanavati Hospital, Mumbai, established in 1950, reintroduced as Nanavati Max Super Speciality Hospital in 2020, is a leading healthcare institution providing comprehensive medical services. It features 350 beds & 55 specialty departments

2. VISION AND MISSION

To be the most well-regarded healthcare provider in India committed to the highest standards of clinical excellence and patient care, supported by latest technology and cutting-edge research.to serve. To excel.

3. Organization structure



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THEROTICAL	PRACTICAL
1. Learned about OT workflow and benchmarks in class	1. Understood real-time OT delays and causes
2. Theories on process improvement, hospital operations	2. Coordinated with nursing, anesthesia, and housekeeping teams
3. Applied operations management and quality tools	3. Observed scheduling gaps and patient shifting delays
4. Used statistical tools like Pareto and Fishbone diagram	4. Hands on with data collection and root-cause analysis

5. SWOT ANALYSIS

Strengths	Weaknesses
• The hospital already has a planned OT schedule, which brings structure to the day. • Doctors, nurses, and anesthetists are skilled and handle many surgeries daily. • There are some SOPs and basic systems already in place for OT operations. • The hospital has a good reputation and NABH accreditation, which supports quality care.	• Delays in shifting patients because porters aren't always available on time. • Cleaning staff were sometimes missing, which delayed OT preparation. • Doctors exceeded scheduled surgery time, which affected the next case. • No clear SOPs for transferring patients or post-op cleaning. • TPA clearance and insurance paperwork was sometimes incomplete or delayed
Opportunities	**Threats**
• Implement a digital tracking system To monitor each stage of the OT process from patient entry to cleaning so that delays can be easily identified and reduced • Train support staff (porters, cleaning team) on the importance of quick turnaround. • Set reminders and alerts in the system for tasks like cleaning, shifting, or pre-op readiness to improve coordination. • Make TPA clearance faster with better documentation and digital tracking.	• A growing demand for surgeries might put extra pressure on existing systems, potentially stretching resources thin. • If waiting times are too long, some patients might prefer going to another hospital for faster treatment • If standard protocols aren't consistently followed, external reviews (like audits) may highlight operational gaps. • Limited workforce or financial constraints could quietly slow down the pace of ongoing improvements.

6. CHALLENGES & LEARNING DURING INTERNSHIP

Challenges faced during internship
- Inconsistent documentation and delay in updating OT logs
- Unclear coordination between OT, recovery, and housekeeping staff
- Delay in patient transport and unavailability of stretchers
- Resistance to workflow changes from staff

Learnings During Internship
- Gained insights into OT workflows and bottlenecks
- Developed analytical skills using Excel for TAT analysis
- Understood inter departmental coordination
- Identified importance of real time data tracking for operational efficiency

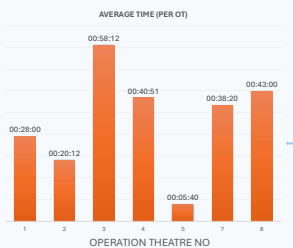
7. PROJECT

AIM & OBJECTIVE :

1. To identify the barriers behind delays in operation theatre turnaround time
2. To suggest practical solutions to improve OT efficiency at Max Nanavati Hospital

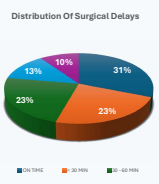
Methodology :

- Data Recorded Manually Over 15 Days
- A Total Of N = 103 Surgical Cases Were Observed Across 7 Operation Theatres During The Study Period
- Data Analyzed Using Excel Presented Via Charts



TOTAL TURNAROUND TIME (TAT) = 33 MIN 28 SEC

TAT per OT : Average Time between two consecutive surgeries in each operation theatre

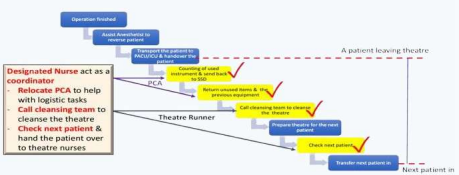


Suggestions :

1. Start first surgery on time
2. Faster Patient Transfer
3. Pre check labs / insurance clearance
4. Surgical preference card usage
5. Improve communication and proper handover

NANAVATI MAX Super Speciality Hospital

Process Mapping: New Workflow for TAT



Reporting Format (Weekly)

Area/ Department/ Project of Summer Internship Program: Clinical oprations

Name of the Student: Buddhbhushan Mukund Thorat

Roll no:2104 **Stream: Hospital and Health Management**

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

Activity Done	• **All Hospital orientation done** • **I was posted in operation theatre for collection of the date related to my project** • **Saw every working department in operation theatre** • **Noted all OT related point like sterilization, CSSD, surgeries, robotic machines, equipment, staff coordination, infection control**
Linking theory (Classroom learning) with practice at your organisation	• Taught Hospital management, Ot sterilization, infection control, team management during the classes they were directly observe
Gaps identified on the working area.	• Minor delays in patient shifting • Compromise with infection prevention • Lack of housekeeping staff • Surgeries are run late from the schedule time
Suggestions for improvement	• Streamlining communication between patient transport, OT, and ward teams to reduce delays. • Digitizing OT scheduling and start-time log to track and analyse delays. • Introducing visual OT dashboards or electronic boards to display the daily schedule.

	• Regular audits and training on checklist adherence for all OT staff.
Plan for the next week	• Observe the functioning of the Central Sterile Supply Department (CSSD). • Assist in tracking turnaround time (TAT) of different OTs. • Conduct shadowing with OT coordinators to understand scheduling challenges. • Begin collecting data for a mini project on improving OT efficiency

Signature of the Student : Buddhbhushan Thorat

Approved by the IIHMR University's Mentor

On the last day of every week Saturday -) report in the above format should be submitted to the faculty mentor. Submission of total 10 reports in 10 weeks is compulsory. Each report should not be more than 2 pages.

Reporting Format (Weekly)

Name of the Organisation: max Nanavati hospital Mumbai

Area/ Department/ Project of Summer Internship Program: clinical operations

Name of the Student: Buddhbhushan Mukund Throat

Roll no: 2106 Stream: Hospital and health management

Week no: From: 19/5/2025 to 24/5/35

Activity Done	• Observed CSSD (Central Sterile Supply Dept.) • Learned how instruments are cleaned, packed, sterilized • Tracked OT turnaround time (TAT) • Shadowed OT coordinator to understand scheduling • Started collecting data for mini project on OT efficiency
Linking theory (Classroom learning) with practice at your organisation	• Topics like sterilization, infection control, hospital operations observed live in CSSD and OT
Gaps identified on the working area.	• Delay in CSSD tray supply sometimes • No proper log of tray dispatch and return • Communication gap between OT and CSSD
Suggestions for improvement	• Plan sterilization timing as per surgery list
Plan for the next week	• Complete data collection for mini project • Start analysis of OT scheduling and delays • Talk to staff for feedback and suggestions

Signature of the Student

Buddhbhushan Thorat

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Reporting Format (Weekly)

Name of the Organisation: MAX NANAVATI HOSPITAL MUMBAI

Area/ Department/ Project of Summer Internship Program: CLINICAL OPERATIONS

Name of the Student: BUDDHBHUSHAN THORAT

Roll no: 2104 Stream: HOSPITAL AND HEALTH MANAGEMENT

Week no: From: 26/5/2025 to 1/6/2025

Activity Done	• Completed data collection for mini project • Observed OT scheduling patterns and delays • Noted reasons for delays • Conducted informal discussions with OT and CSSD staff
Linking theory (Classroom learning) with practice at your organisation	• Applied concepts of TAT analysis, process mapping, and hospital workflow • Saw real-time examples of communication gaps affecting OT efficiency
Gaps identified on the working area.	• Delay in patient shifting and case preparation • Lack of coordination between OT, ward, and transport staff
Suggestions for improvement	• Create a checklist-based system for patient shifting • Improve inter-department communication through defined protocols
Plan for the next week	• Start preparing analysis charts and graphs • Draft findings for TAT improvement • Discuss with my mentor

Signature of the Student

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Reporting Format (Weekly)

Name of the Organisation: MAX NANAVATI HOSPITAL MUMBAI

Area/ Department/ Project of Summer Internship Program: CLINICAL OPERATIONS

Name of the Student: BUDDHBHUSHAN THORAT

Roll no: 2104 Stream: HOSPITAL AND HEALTH MANAGEMENT

Week no: From: 2/6/2025 to 8/6/2025

Activity Done	• Started analysing collected data for delays and scheduling • Created Excel sheets for time tracking and categorization • Identified delay patterns and early case trends
Linking theory (Classroom learning) with practice at your organisation	• Applied Excel functions for data analysis • Understood application of Six Sigma in analysing OT turnaround time
Gaps identified on the working area.	• Delay documentation is inconsistent • No visual tracking system for OT activities
Suggestions for improvement	• Standardize delay recording format • Display OT schedule with expected vs actual timings
Plan for the next week	• Prepare graphs, charts, and dashboard • Finalize interpretations for project • Prepare mid-term presentation draft and review with mentor

Signature of the Student

Buddhbhushan Thorat

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Reporting Format (Weekly)

Name of the Organisation: MAX NANAVATI HOSPITAL MUMBAI

Area/ Department/ Project of Summer Internship Program: CLINICAL OPERATIONS

Name of the Student: BUDDHBHUSHAN THORAT

Roll no: 2104 **Stream: HOSPITAL AND HEALTH MANAGEMENT**

Week no: **From:9/6/24 to 14/6/25**

Activity Done	• Analysed delay & scheduling data • Made excel sheets for all collected data • Discussed with mentor
Linking theory (Classroom learning) with practice at your organisation	• Used Excel for data analysis • Applied Six Sigma in OT turnaround time
Gaps identified on the working area.	• Delay documentation • No visual OT activity tracking system
Suggestions for improvement	• Standardize delay recording format • Show OT schedule: expected vs actual time
Plan for the next week	• Finalize project interpretations • Make ppt • Draft & review mid-term presentation with mentor

Signature of the Student

Buddhbhushan thorat

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Reporting Format (Weekly)

Name of the Organisation: MAX NANAVATI HOSPITAL MUMBAI

Area/ Department/ Project of Summer Internship Program: CLINICAL OPERATIONS

Name of the Student: BUDDHBHUSHAN THORAT

Roll no: 2104 **Stream: HOSPITAL AND HEALTH MANAGEMENT**

Week no: **From: 15/6/25 to 20/6/25**

Activity Done	• Finalized project interpretation • Created PPT slides • get feedback from project mentor and correct mistakes
Linking theory (Classroom learning) with practice at your organisation	• Used data visualization concepts from class • Applied presentation and communication skills
Gaps identified on the working area.	• Surgeries delay due doctors' arrival late • May causes for delays in surgeries
Suggestions for improvement	• Giving 8 solutions for improvement • Use surgical preference card usage • Doctors time management
Plan for the next week	• Final analysis • Final draft • Taking next project from mentor

Signature of the Student

Buddhbhushan thorat

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Reporting Format (Weekly)

Name of the Organisation: MAX NANAVATI HOSPITAL MUMBAI

Area/ Department/ Project of Summer Internship Program: CLINICAL OPERATIONS

Name of the Student: BUDDHBHUSHAN THORAT

Roll no: 2104 **Stream: HOSPITAL AND HEALTH MANAGEMENT**

Week no: **From:23/6/24 to 28/6/25**

Activity Done	• Made all findings sheet • Made graphs and all required data for ppt • Made ppt with aim, objective, methodology, findings, causes, solutions, new process map • Complete final dashboard for OT delays tracking
Linking theory (Classroom learning) with practice at your organisation	• Applied concept of quality indicators in clinical process • Used hospital operations KPIs to evaluate dashboard
Gaps identified on the working area.	• No real time tracking of ot delays through digital tools
Suggestions for improvement	• Give 8 solutions • Start first surgery on time • Surgical preference card usage
Plan for the next week	• Complete and submit ppt • Give presentation to the mentor • Will doing audit work

Signature of the Student

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Reporting Format (Weekly)

Name of the Organisation: MAX NANAVATI HOSPITAL MUMBAI

Area/ Department/ Project of Summer Internship Program: CLINICAL OPERATIONS

Name of the Student: BUDDHBHUSHAN THORAT

Roll no: 2104 **Stream: HOSPITAL AND HEALTH MANAGEMENT**

Week no: **From:30/6/24 to 05/7/25**

Activity Done	• Submitted the final PowerPoint presentation after incorporating all feedback. • Delivered the presentation to the clinical operations team and mentor • Started reviewing patient consent forms and file closure audit process
Linking theory (Classroom learning) with practice at your organisation	• Applied theoretical understanding of audit cycles in a hospital setup • Used classroom knowledge on hospital accreditation and documentation standards to assess real-time practices.
Gaps identified on the working area.	• No real time tracking of ot delays through digital tools • Incomplete or missing patient consents observed during file audits.
Suggestions for improvement	• Start using a digital system to track patient consents • Create a simple checklist to make sure all required documents are there before closing a file
Plan for the next week	• Continue the audit work and review more patient files • Note down any repeated issues or mistakes in the documentation

Signature of the Student

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Reporting Format (Weekly)

Name of the Organisation: MAX NANAVATI HOSPITAL MUMBAI

Area/ Department/ Project of Summer Internship Program: CLINICAL OPERATIONS

Name of the Student: BUDDHBHUSHAN THORAT

Roll no: 2104 **Stream: HOSPITAL AND HEALTH MANAGEMENT**

Week no: From:7/6/2025 to 12/6/2025

Activity Done	• Audited patient files focusing on consent and discharge documentation • Attended internal quality team discussions. • Observed staff practices during file closure.
Linking theory (Classroom learning) with practice at your organisation	• Applied NABH standards from class to real case files • Related classroom concepts to actual documentation flows
Gaps identified on the working area.	• Consent forms incomplete or missing signatures • Discharge summaries lacked clarity in some cases
Suggestions for improvement	• Conduct staff training on proper documentation. • Use reminders in EMR for consent completion
Plan for the next week	• Complete auditing of 50 patient files • Join and learn from the TPA department about insurance processes • Present my project and audit findings in front of all hospital chiefs and clinical leaders

Signature of the Student

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Reporting Format (Weekly)

Name of the Organisation: MAX NANAVATI HOSPITAL MUMBAI

Area/ Department/ Project of Summer Internship Program: CLINICAL OPERATIONS

Name of the Student: BUDDHBHUSHAN THORAT

Roll no: 2104 **Stream: HOSPITAL AND HEALTH MANAGEMENT**

Week no: **From: 14/7/2025 to 19/7/2025**

Activity Done	• Participated in project presentation in front of clinical leadership and admin heads. • Collaborated with TPA and billing teams to understand claim settlement and discharge clearance flow. • Continued auditing remaining patient records for discharge and consent documentation accuracy. • Assisted in reviewing turnaround time trends and discussed findings with the OT in-charge
Linking theory (Classroom learning) with practice at your organisation	• Applied process improvement concepts and workflow mapping learned in operations management classes. • Related NABH audit standards with real-time documentation practices in the OT and billing departments. • Understood practical relevance of hospital policies and SOPs in compliance monitoring.
Gaps identified on the working area.	• Lack of coordination between clinical staff and TPA during discharge leading to delays. • Turnaround time data not being tracked or monitored consistently. • Inadequate staff awareness regarding documentation standards and deadlines

Suggestions for improvement	• Introduce daily TAT reporting and dashboard display in OT areas. • Conduct short awareness sessions for nursing and housekeeping teams on their role in reducing TAT. • Strengthen communication between TPA, billing, and clinical teams with a shared checklist
Plan for the next week	• Finalize data analysis and incorporate feedback from department heads. • Prepare final internship report and poster for internal presentation. • Share practical recommendations to hospital leadership for implementation

Signature of the Student

Buddhbhushan thorat

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Compiled Reporting Format

Name of Organization – Max Nanavati Hospital , Mumbai

Area/ Department/ Project of Summer Internship Program: Clinical oprations

Name of the Student: Buddhbhushan Mukund Thorat

Roll no:2104 **Stream: Hospital and Health Management**

Activity Done	• **1. OT Efficiency and Delay Reduction Project** • **Observed OT operations including sterilization, infection control, and robotic surgeries.** • **Tracked turnaround time (TAT) for various surgeries and patient shifts.** • **Shadowed OT coordinators and CSSD staff to identify scheduling delays.** • **Created Excel sheets for delay documentation and scheduling patterns.** • **Developed dashboards and graphs for OT efficiency tracking.** • **Identified delay causes such as patient transport gaps, doctor availability, and tray readiness.** • **Suggested solutions like checklist-based shifting, visual tracking boards, and use of surgical preference cards.** • 📋 **2. File Audit and Documentation Accuracy** • **Reviewed 50+ patient files focusing on discharge summary and consent completeness.** • **Attended internal quality and documentation review meetings.** • **Found issues with incomplete consent forms and unclear discharge notes.** • **Suggested digital reminders in EMR and**

	standardized checklists for file closure. • **3. TPA, Billing & Discharge Flow Optimization** • **Studied claim settlement, discharge clearance processes, and insurance denial reasons.** • **Identified lack of coordination between TPA, clinical, and billing teams.** • **Recommended introduction of shared discharge checklist and daily dashboard reporting.**
Linking theory (Classroom learning) with practice at your organisation	• Applied concepts of **Hospital Operations Management**, **OT Process Mapping**, and **TAT analysis**. • Used **Six Sigma principles** and **quality indicators** in OT delay tracking. • Leveraged **data visualization** and **Excel/Google Sheet tools** to prepare dashboards and reports. • Practically implemented **audit cycle frameworks** and **NABH standards** during file audits. • Gained exposure to **workflow redesign**, **hospital SOPs**, and **compliance documentation**.
Gaps identified on the working area.	• Frequent delays in surgeries due to late patient shifting and surgeon arrival. • Missing or incomplete documentation in discharge summaries and consent forms. • Inadequate interdepartmental coordination (OT, CSSD, TPA, transport, billing). • Absence of real-time dashboards for OT activity tracking. • No standardized process to document OT delays and causes.

Suggestions for improvement	• Implement **digital OT dashboards** to track real-time schedules and delays. • Create and use **surgical preference cards** to streamline OT readiness. • Introduce **daily TAT reports** and visual indicators in OT areas. • Conduct **awareness training** for staff on timely documentation and discharge preparation. • Develop **EMR-based consent reminders** to reduce audit gaps. • Establish a **centralized discharge checklist** across TPA, billing, and clinical teams.
Key Learnings	• Understood the practical application of hospital operations concepts in OT and discharge workflows. • Learned to collect, clean, analyze, and present healthcare data using tools like Excel and PowerPoint. • Developed problem-solving and communication skills by interacting with cross-functional teams. • Gained insight into real-time **NABH compliance**, **audit documentation**, and **hospital policy enforcement**. • Learned how **data-driven decision making** and small process changes can lead to big efficiency improvements.

Signature of the Student : Buddhbhushan Thorat

Approved by the IIHMR University's Mentor