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Plot No. F/4, Chandaka Industrial Estate, Infocity, Patia, Bhubaneswar-24
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# SUMMER INTERNSHIP PROJECT 2026

## REPORT TITLE

QUALITY MONITORING AND PERFOMANCE ASSESMENT IN HOSPITAL OPERATION

**SUBMITTED BY**

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Sunshine HOSPITAL BHUBANESWAR
A unit of Sai Sidhi Swagat Health Services Pvt. Ltd.

NABH

Date: 11th November 2025

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Arpita Patel, Pursuing Integrated Master of Business Administration from Biju Patnaik Institute Of Information Technology & Management Studies, Bhubaneswar, has sincerely & successfully completed her internship training program in the department of Finance at Sunshine Hospital, Bhubaneswar.

The tenure of her training was from 08th October 2025 to 11th November 2025.

During her internship period we found her to be sincere, hardworking, dedicated intern with a learning attitude.

We wish her all the best for her future endeavor.

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## CERTIFICATE OF FACULTY/INTERNAL GUIDE

This is to certify that Mr./Ms. Arpita Patel, bearing university registration no 2213258010 of 2022-27 batch, has completed his/her summer internship at Sunshine Hospital from 08th October 2025 to 11th November 2025 under the supervision of Ms. Poonam Tripathy (corporate guide) and has submitted this project report under my guidance in partial fulfilment of the requirements for award of the degree of Integrated Master of Business Administration at Biju Patnaik Institute of Information Technology and Management Studies, Bhubaneswar. To the best of my knowledge and belief, this project report has been prepared by the student and has not been submitted to any other institute or university for the award of any degree or diploma.

Date: 11.11.2025

Place: Bhubaneswar

Signature of the Faculty/Internal Guide

Name: Sudeshna Dutta

Designation: Associated professor ( Finance )

## DECLARATION

I, Mr./Ms. Arpita Patel Bearing university registration no. 2213258010 (2022-2027 batch), hereby declare that the project report titled "Balancing the Books — Financial Assessment of Credit and Scheme-Linked Treatment in Hospital Billing" is based on my internship at Sunshine Hospital, BBSR, during the period 08th October 2025 to 11st November 2025 is an original work done by me under the supervision of Mr/Ms Poonam Tripathy (Corporate Guide) and Mr./Ms. Sudeshna Dutta (Internal Guide). This report is being submitted to Biju Patnaik Institute of Information Technology and Management Studies, Bhubaneswar, affiliated to Biju Patnaik University of Technology, Odisha, in partial fulfilment of the requirements for the award of the degree of Integrated Master of Business Administration. This project report has not been submitted to any other institute/university for the award of any degree or diploma.

Date: 11.08.2025

Place: Bhubaneswar Signature

## ACKNOWLEDGEMENT

It gives me immense pleasure to express my heartfelt gratitude to all those who have supported me directly or indirectly in the successful completion of this project report.

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I am especially thankful to Sudeshna Dutta, Assistant Professor at Biju Patnaik Institute of Information Technology & Management Studies, for his consistent support, valuable suggestions, and encouragement during the course of my project.

I would also like to extend my gratitude to the management of my college for providing me with the opportunity to undertake this internship and project work as a part of my MBA curriculum.

Lastly, I am deeply thankful to my internal guide, Dr. Sudeshna Dutta, for his continuous guidance, motivation, and patience, which helped me in shaping this report effectively.

Name of the Student: - Arpita Patel
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# Abstract:

This report highlights my internship experience in the Quality Department of a hospital, where I gained practical exposure to the implementation of quality standards and performance monitoring as per the guidelines of the National Accreditation Board for Hospitals (NABH). The internship provided me with an opportunity to understand how healthcare organizations maintain and evaluate quality indicators to ensure patient safety, regulatory compliance, and continuous improvement.

One of my key responsibilities was to prepare the three-month Key Performance Indicators (KPIs) allocated by NABH. This involved collecting, analyzing, and presenting data related to various quality metrics across departments. I also compiled and calculated 32 Key Observational Indicators (KOIs) for two quarters—April to June and July to September—and presented the findings through a detailed PowerPoint presentation to highlight performance trends and areas for improvement.

In addition to data analysis, I prepared a comprehensive master list of all hospital departments to enhance documentation and coordination within the organization. I also developed a presentation on medication errors reported throughout the year, focusing on identifying root causes, frequency, and preventive actions. This task deepened my understanding of patient safety protocols and the importance of error reporting systems in healthcare.

Furthermore, I contributed to the preparation of deviation reports that documented non-conformities and proposed corrective measures. These reports played a crucial role in the hospital's continuous quality improvement initiatives. Overall, the internship enriched my knowledge of healthcare quality management, enhanced my analytical and documentation skills, and provided valuable insights into maintaining high standards of care and operational excellence within a hospital setting.

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# CHAPTER -1

# Introduction : -

In today's evolving healthcare landscape, maintaining and improving quality of care has become a central focus for hospitals striving to ensure patient safety, satisfaction, and compliance with national standards. The Quality Department plays a vital role in establishing systematic processes that monitor, evaluate, and enhance clinical and non-clinical performance across all hospital departments.

The project titled "Performance Assessment through Key Performance Indicators (KPIs) as per NABH Standards" focuses on understanding, analyzing, and presenting quality metrics that reflect the hospital's operational efficiency and patient safety outcomes. Conducted at the Quality Department of [Hospital Name], this internship provided practical exposure to the hospital's quality monitoring framework and its alignment with National Accreditation Board for Hospitals (NABH) guidelines.

With hospitals increasingly adopting accreditation-driven standards, the role of data-based performance evaluation has become indispensable. During this internship, a total of 32 NABH-approved Key Performance Indicators were compiled and analyzed for the months of July, August, and September. These indicators covered key domains such as infection control, patient satisfaction, incident reporting, emergency response time, and medication management. The findings were summarized and presented through a comprehensive PowerPoint presentation for management review and internal audits.

Additionally, a separate project was undertaken on Medication Error Analysis, which involved collecting and reviewing all reported medication errors for the year 2025, categorizing them based on type and cause, and preparing a detailed presentation to identify patterns and recommend corrective actions.

This internship offered an in-depth understanding of how performance data contributes to continuous quality improvement (CQI), regulatory compliance, and strategic decision-making in hospital operations. The experience also highlighted the importance of accuracy in documentation, data interpretation, and the collaborative role of the quality department in enhancing overall hospital performance.


**SUNSHINE HOSPITAL**

# Scope of the Study

1. **Preparation and Analysis of Key Performance Indicators (KPIs):**

   Compilation, calculation, and interpretation of 32 NABH-approved KPIs for the months of July, August, and September, covering areas such as patient safety, infection control, nursing care, emergency response, and administrative efficiency.

2. **Evaluation of Departmental Performance:**

   Assessing trends and performance variations among different departments based on KPI data to identify strengths, weaknesses, and opportunities for quality improvement.

3. **Medication Error Analysis:**

   Collection and analysis of medication error data for all patients in the year 2025, categorizing the types of errors, their causes, and their impact on patient safety. The analysis aimed to assist the hospital in implementing corrective and preventive actions (CAPA).

4. **Understanding Quality Management Practices:**

   Observing how the hospital maintains documentation, conducts internal audits, and implements continuous quality improvement (CQI) activities as part of the NABH accreditation process.

# Objective of the Study

- To understand the functioning of the Quality Department and its role in maintaining patient safety and hospital performance as per NABH standards.

- To prepare and analyze 32 NABH-approved Key Performance Indicators (KPIs) for the months of July, August, and September to evaluate hospital efficiency and service quality.
- To conduct a Medication Error Analysis for the year 2025, identifying the causes, frequency, and impact of medication errors on patient safety.
- To contribute to the hospital's Continuous Quality Improvement (CQI) process by providing data-driven insights and recommendations for better healthcare outcomes.

# Methodology

The Data included are primary data collected from daily discharge claim dashboards of the month June, July, August 2025.

The data included parameters like:

- Total discharges per category
- Revenue generated on discharge
- Number of claims closed
- Revenue from claims settled
- Month-to-date (MTD) cumulative figures

The data was cleaned, categorized by billing type (GJAY, TPA, CGHS), and analyzed for trends and performance indicators.

# Review of Literature

## Importance of Quality Management in Healthcare:

Effective quality management systems are vital for ensuring patient safety, operational efficiency, and consistent healthcare outcomes. According to the World Health Organization (WHO, 2018), structured quality monitoring and evaluation through measurable indicators are essential for achieving safe, effective, and patient-centered healthcare delivery.

## Role of Accreditation Standards (NABH):

The National Accreditation Board for Hospitals and Healthcare Providers (NABH) provides a framework for implementing standardized procedures that ensure hospital quality and patient safety. NABH emphasizes documentation, performance measurement, and continuous improvement through regular monitoring of Key Performance Indicators (KPIs) (QCI, 2020).

## Key Performance Indicators (KPIs) in Hospitals:

KPIs serve as quantifiable tools for assessing hospital efficiency, safety, and quality of services. Studies indicate that hospitals that systematically monitor KPIs witness improved clinical performance, infection control, and patient satisfaction (Srinivasan & Gupta, 2019). Regular KPI evaluation also supports evidence-based decision-making and compliance with accreditation requirements.

## Master List and Document Control System:

A Master List of Departments and Documents forms the foundation of an effective hospital quality management system. It helps ensure that all departments work according to standardized policies and that all controlled documents—such as Standard Operating Procedures (SOPs), manuals, and records—are updated and traceable. According to ISO 9001:2015 and NABH

guidelines, maintaining a master list ensures document uniformity and supports internal and external audits (Raj & Mehta, 2021).

## Medication Error Analysis and Patient Safety:

Medication errors are among the most frequent and preventable causes of patient harm. Research by the Institute of Medicine (IOM, 2006) emphasizes that systematic reporting and analysis of such errors help healthcare institutions identify root causes and implement corrective and preventive actions. Hospitals that regularly review medication error data have reported significant improvements in patient safety and staff awareness (Patel & Thomas, 2021).

## Continuous Quality Improvement (CQI):

Continuous Quality Improvement (CQI) is a systematic, data-driven process aimed at enhancing hospital performance and patient outcomes. Based on Donabedian's Model (1980), CQI emphasizes evaluating the relationship between structure, process, and outcomes. Hospitals adopting CQI frameworks demonstrate consistent improvement in both clinical and administrative domains (Rao & Menon, 2018).

## Use of Technology in Quality Monitoring:

The adoption of Hospital Information Systems (HIS) and digital dashboards has improved the collection, tracking, and presentation of quality data. These tools enhance transparency, accuracy, and speed in monitoring KPIs and medication errors. Studies show that digital systems support effective decision-making and reduce manual documentation errors (NASSCOM, 2020).

# Limitations of the Study

1. **Hospital-Specific Scope:**

   The study is limited to Sunshine Hospital, Bhubaneswar, and may not reflect the practices or financial models of other hospitals.

2. **Time Constraints:**

   The analysis is based on a short internship duration, which limits long-term financial trend observation and data consistency.

3. **Restricted Data Access:**

   Access to certain confidential data, such as incident reports, internal audit results, and patient case details, was restricted due to hospital policies on data privacy and confidentiality.

4. **Limited Departmental Interaction:**

   Due to busy hospital operations, interaction with some clinical and administrative departments was limited, which reduced the opportunity to gain deeper insights into cross-departmental quality challenges.

5. **No Comparative Benchmarking:**

   The study focuses solely on internal KPI data and medication error analysis of the hospital. There is no comparative evaluation with other hospitals or NABH-accredited institutions, which could have provided broader performance benchmarks.

6. **Dynamic Quality Standards:**

   Quality indicators and NABH assessment parameters are periodically updated. Hence, the findings and interpretations of this study are based on the standards applicable at the time of the internship and may evolve with future revisions.

# CHAPTER -2

# Company Profile:

Types of Entities Governing Sunshine Hospital

1. **Operational Entity in Odisha**

   Sunshine Hospital, Bhubaneswar, operates as part of a private company headquartered in Mumbai called Sunshine Hospital India Private Limited—a non-government, private company registered with the Ministry of Corporate Affairs in Maharashtra. It was incorporated in October 2020 with CIN U85110MH2020PTC347181.

2. **Unit Affiliate in Odisha**

   In Odisha, the facility functions as a unit of Sai Sidhi Swagat Health Services Pvt. Ltd., under which it conducts its healthcare operations in Bhubaneswar

# About the Company:

- The Sunshine Hospital is one of Odisha's most well equipped, state-of-art multi-super specialty hospital, located in Bhubaneswar.
- Founded in January, 2021 by a team of nationally renowned doctors.
- Aim to provide the highest standards of medical care, along with clinical research.
- Our principle is providing medical services to patients with care, compassion & commitment.
- We strive to provide the best medical treatment & healthcare services at an affordable price thus making modern day medical facilities accessible even to the most backward communities.
- We have commitment team of highly qualified doctors , nurses & support staff follow international standards in operating and nursing protocols.

- We use of modern technology for diagnosis & treatment combined with highly efficient nursing services.

## Vision of the Company:

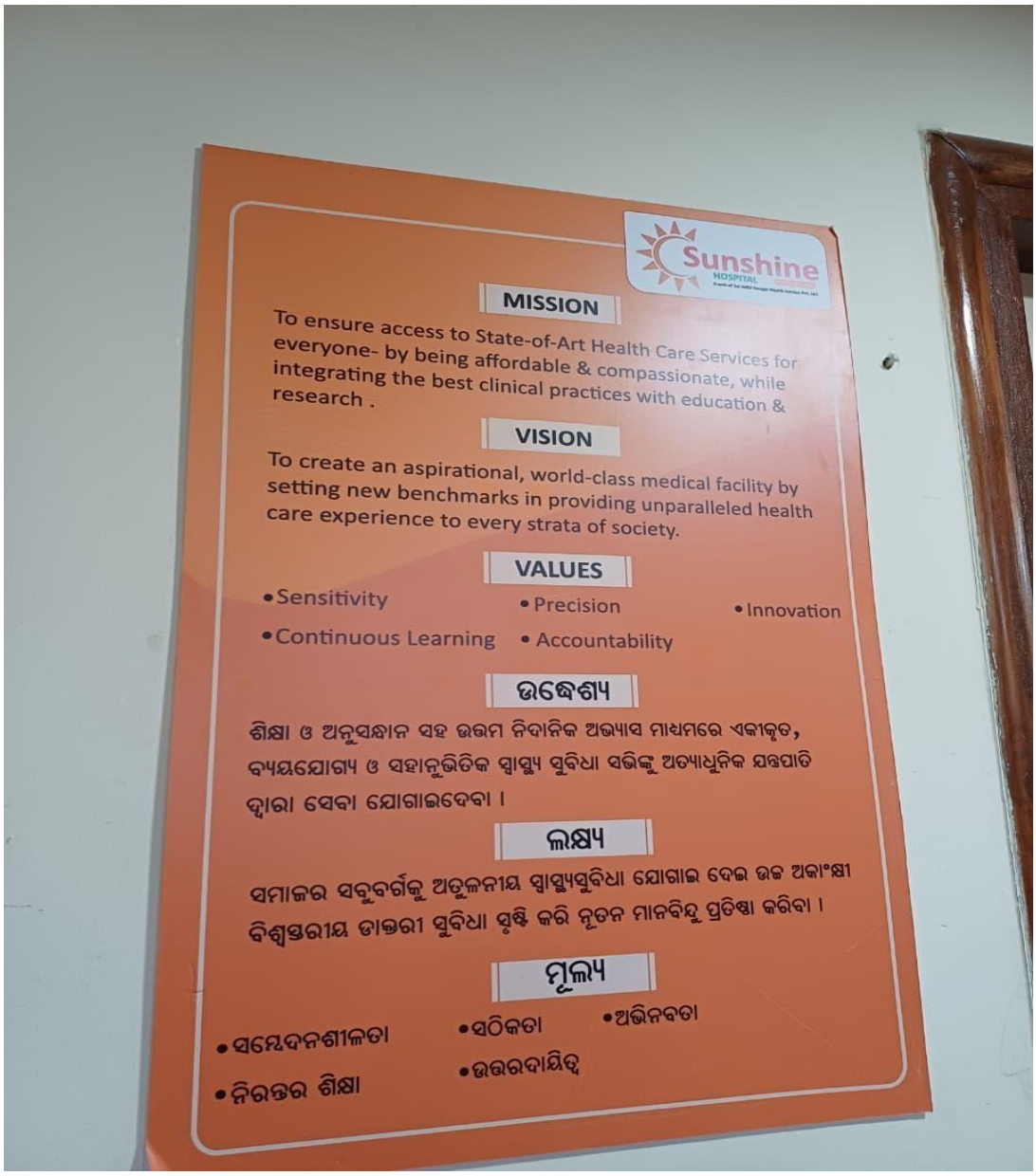
To create an aspirational, world-class medical facility by setting new benchmarks in providing unparalleled health care experience to every strata of society.

## Mission of the Company:

To ensure access to State-of-Art Health Care Services for everyone- by being affordable & compassionate, while integrating the best clinical practices with education & research.

## Value of the Company:

- Sensitivity
- Precision
- Innovation
- Continuous Learning
- Accountability




# Quality Policy:

We are committed to maintain the highest standard of care & treatment with special emphasis to patient safety and satisfaction. We constantly strive on improving quality indices and make it our hallmark of practice.

## Achievements of Company:

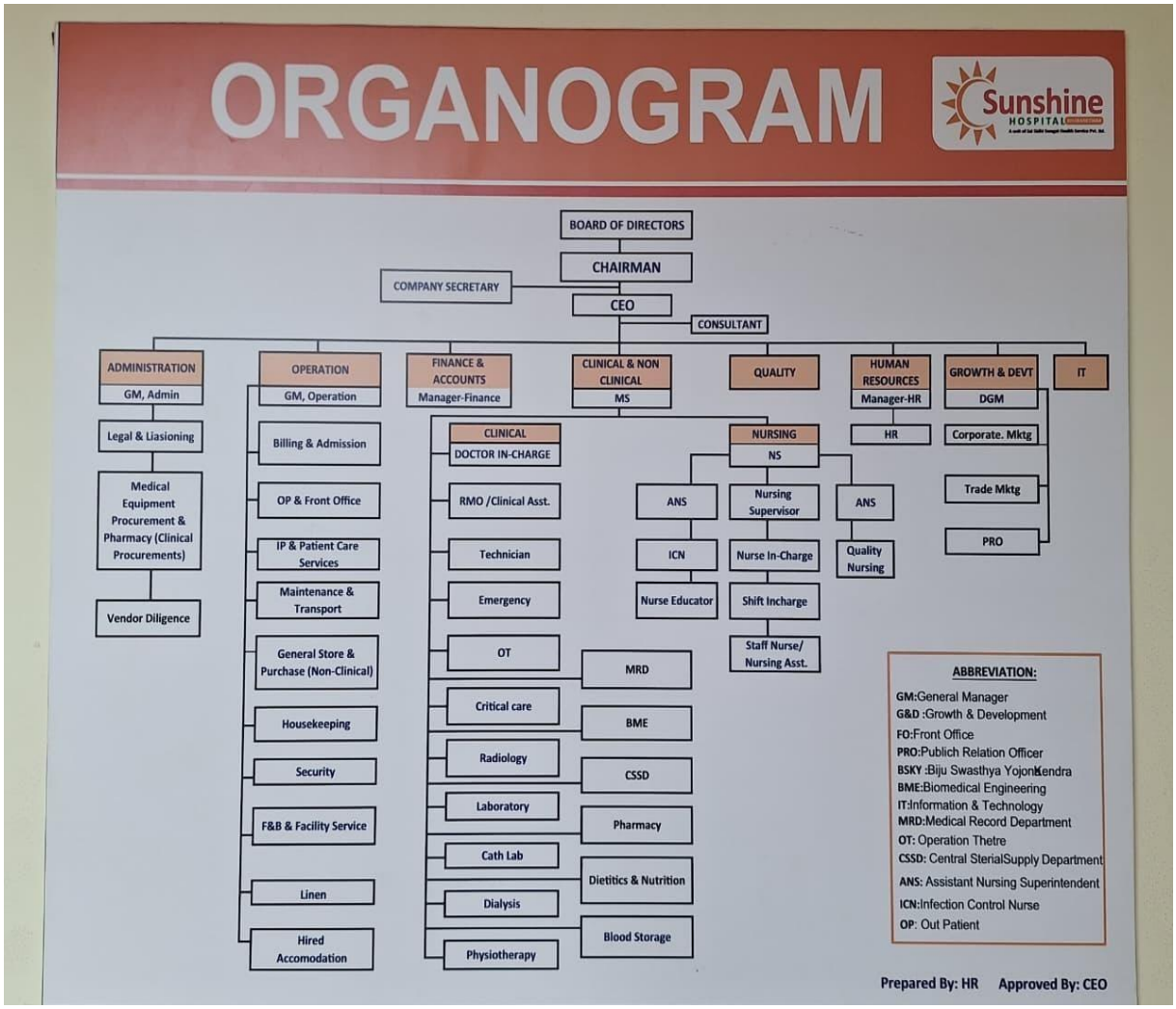
- More than 1500 Brain Stroke Cases Treated Successfully.
- More than 1000 Brain & Spine Surgeries operated Successfully.
- More than 30 Bi-Portal Endo spine Surgery Operated Successfully.
- More than 800 Covid Patients Managed with minimal Mortality Rates.
- More than 1500 ICU cases Successfully Treated with Minimal Mortality.
- Safe Hand CTVS Surgery with 0% Mortality rates.
- 350+ Angioplasty Procedures within a span of 6 Months.
- 300+ Replacement Surgeries Since Jan-2022.

## Overview of Company:

- 100 Bedded Hospital
- Trauma center
- PMGAY, GJAY
- 24×7 FREE Ambulance
- 4+ Year of experience
- High qualified super specialist doctors
- ICU, SICU, MICU, CT ICU

## Centers of Excellence & Medical Expertise:

- The hospital features multiple centers of excellence including **Cardiology, Neurology, Orthopaedics, Gastroenterology, Spine Surgery, Urology and Nephrology.**
- It is supported by an experienced team of consultants such as **Dr. P.K. Sahoo, Dr. Payod Kumar Jena, Dr. Ayaskant Mohanty, and Dr. Alok Lodh,** among others.




# HIERARCHY CHART OF SUNSHINE HOSPITAL

# INDURSTY ANALYSIS: -

**1. Number of Players:**

Bhubaneswar's healthcare market has multiple players, including big names like Apollo, AMRI, KIMS, SUM, and Sunshine, creating a competitive ecosystem.

**2. Total Market Size:**

India's hospital sector is valued at ₹7.2 lakh crore, with Bhubaneswar contributing significantly as a growing regional healthcare hub.

**3. Relative Share of Players:**

Sunshine holds an estimated 5–10% market share, competing with larger players like KIMS and Apollo, who dominate with 25–35%.

**4. Nature of Competition:**

The hospital industry in Bhubaneswar shows oligopolistic characteristics, with a few major players and moderate price-based competition.

**5. Differentiation Practices by Players:**

| Hospital | Differentiation Strategy |
|---|---|
| **Apollo Hospitals** | Premium pricing, NABH & JCI accreditations, corporate focus |
| **AMRI Hospitals** | Multi-specialty, strong East India presence |
| **KIMS & SUM** | Education-linked hospitals, large infrastructure |
| **Sunshine Hospital** | Affordable care, fast claims processing, personalized service |

| Hospital | Differentiation Strategy |
|---|---|
| **Care Hospitals** | Cardiac and neuro specialties |

**6. Barriers (Entry–Exit):**

High capital needs, regulatory approvals, and staffing shortages pose entry barriers, while long-term assets and liabilities hinder easy exit.

# Strategic Analysis: Porter's Five Forces – Sunshine Hospital, Bhubaneswar:

To assess Sunshine Hospital's position in the competitive healthcare landscape, **Porter's Five Forces** model has been applied. This model identifies the **key external forces** that influence hospital profitability, service competitiveness, and strategic direction.

## 1. Threat of New Entrants – Low to Moderate

"The hospital industry has high entry barriers but moderate local competition."

- High capital investment is required for infrastructure, clinical equipment, and skilled staffing.
- NABH and other regulatory accreditations create compliance hurdles.
- Brand trust and patient loyalty in healthcare take years to build.
- However, local-level players or small private clinics in Bhubaneswar continue to emerge, raising the need for constant innovation.

**Strategic Response***:* Sunshine Hospital counters this by investing in quality care, accreditations, and continuous medical education.

## 2. Bargaining Power of Buyers (Patients & Insurers) – High

"The modern patient is aware, price-sensitive, and has multiple choices."

- With schemes like BSKY, Ayushman Bharat, and private insurance, patients now demand transparency and affordability.
- Corporate tie-ups, TPA settlements, and scheme-linked patients exercise strong financial negotiation.
- Easy access to online hospital ratings and alternative clinics increases switching potential.

**Strategic Response**: Sunshine Hospital maintains transparency in billing, enhances service quality, and creates awareness about its package pricing and insurance support.

## 3. Bargaining Power of Suppliers – Moderate to High

"Technology and pharma vendors often control pricing due to specialization."

- Medical equipment (MRI, cath labs, etc.) and pharma companies have fewer substitutes, giving them power.
- Fluctuations in medical consumable prices and dependencies on third-party vendors affect cost efficiency.
- Short-term contracts may increase vulnerability to price hikes.

**Strategic Response:** Sunshine negotiates long-term vendor contracts, bulk purchases, and maintains an in-house pharmacy for better control.

## 4. Threat of Substitutes – Moderate

"Outpatient clinics and telemedicine offer alternatives for basic services."

- Patients may opt for standalone diagnostic labs, online consultations, or AYUSH centers for non-emergency care.
- Medical tourism or referral to higher tertiary care centers outside Bhubaneswar may divert critical cases.

**Strategic Response:** Sunshine strengthens its OPD, diagnostics, and telehealth services, and focuses on personalized care models to retain patients.

### 5. Industry Rivalry – High

"Private healthcare is a competitive battlefield in urban Odisha."

- Competes with Apollo, Care Hospitals, AMRI, and other super-specialty centers.
- Talent poaching, price competition, and digital marketing intensify rivalry.
- Patients often base decisions on word of mouth, success rates, and cost transparency.

**Strategic Response:** Sunshine positions itself through service excellence, competitive pricing, corporate packages, and continuous patient engagement.

## Emerging Trends:

Sunshine Hospital is aligning with industry trends like **cashless treatment under health schemes**, **teleconsultation**, **digital billing**, and **patient-centric service models** to enhance access and satisfaction.

- **Innovation in Technology:**

The hospital is adopting EMR (Electronic Medical Records), hospital management systems, automated billing, and diagnostic advancements to improve clinical efficiency and financial transparency.

- **Changes in Regulatory Environment:**

Sunshine Hospital complies with evolving norms like NABH standards, BSKY empanelment updates, GST compliance, and digital health records mandate under the National Digital Health Mission (NDHM).

# CHAPTER-3

## Key Competitor Analysis of Sunshine Hospital:

Sunshine Hospital's competitors based on their type, specialization, and market strategy, providing a broad view of the competitive landscape.

| Competitor | Strengths | Weaknesses | Comparison with Sunshine Hospital |
|---|---|---|---|
| **Apollo Hospitals** | Strong brand, advanced infrastructure, corporate tie-ups | Expensive, less focus on scheme/credit patients | Sunshine is more cost-effective and scheme-oriented |
| **AMRI Hospitals** | Good reputation, wide specialty coverage, high patient capacity | Corporate pricing, crowded facilities | Sunshine offers quicker and more personalized services |
| **SUM Ultimate Medicare** | Technologically advanced, robotic surgery, super-specialties | New in the market, higher pricing | Sunshine is more accessible and established for mid-income patients |
| **KIMS (KIIT)** | Affordable, huge infrastructure, medical college attached | Overcrowded, student-dependent services | Sunshine provides more streamlined and professional patient handling |

| Competitor | Strengths | Weaknesses | Comparison with Sunshine Hospital |
|---|---|---|---|
| **CARE Hospitals** | Well-organized systems, NABH certified, strong clinical team | Premium pricing | Sunshine caters more to insurance/scheme patients than CARE Hospitals |

# CHAPTER-4

# Types of Customers with respect to Sunshine Hospital

**1. Economic Customers:**

**Definition:** These customers are highly price-sensitive and always look for value for money. They compare costs, discounts, and schemes before making a decision.

**At Sunshine Hospital:** Such patients usually check treatment costs, insurance coverage, or government schemes like PMGAY, GJAY before admission. They often ask, "How much will this cost in total?" and want assurance that they are not overpaying.

**2. Cognitive Customers:**

**Definition:** These customers make decisions logically, based on research, knowledge, and facts rather than the emotions.

**At Sunshine Hospital:** They come after reading online reviews, checking doctors' profiles, and comparing facilities. They ask detailed questions like, "What's the success rate of this surgery?" or "What are the side effects of this treatment?" They need clarity and expert advise before trusting the hospital.

**3. Passive Customers:**

**Definition:** These customers do not take active decisions themselves; instead, they follow the advice or recommendation of others.

**At Sunshine Hospital:** Many patients come because a family doctor, friend, or relative suggested the hospital. Some are referred through insurance companies or corporate tie ups. They don't question much and usually go with the hospital's flow, trusting others' judgement.

**4. Impulsive Customers:**

**Definition:** These customers decide quickly, often driven by urgency or emotions, without deep comparison or analysis.

**At Sunshine Hospital:** In emergencies like accident, heart attacks, or critical cases, patients' families rush to the hospital without checking alternatives. Their main thought is, "We need immediate treatment." Quick admission, availability of doctors, and immediate care matter more than cost or comparison.

## Customer Analysis of Sunshine Hospital:

During the project, patient data and claim records at Sunshine Hospital revealed that the hospital serves a diverse customer base categorized by payment method, healthcare schemes, and service preference. Below is the analysis based on financial patterns and scheme linkages:

**1. Scheme-Linked Customers (Government-Sponsored)**

- **GJAY Beneficiaries (Gopabandhu Jana Arogya Yojana):**
- Largest segment among scheme patients.
- Primarily from rural and lower-income backgrounds.
- Prefer general and emergency care.
- Expect **cashless treatment**, often unaware of exclusions.

**2. Credit Patients (Corporate & Institutional)**

- Covered by Third-Party Administrators (TPAs) or direct corporate tie-ups.

- Usually from private companies, government undertakings, or PSUs.
- Expect faster admission, cashless hospitalization, and premium service.
- Require frequent coordination with HR departments or insurance desks.

**3. General (Self-Paying) Patients**

- Pay out-of-pocket for services.
- Often expect detailed cost estimates and may compare prices before treatment.
- Prefer transparency in billing and may opt for partial package-based services if affordable.

## What Customers Buy at Sunshine Hospital:

"Customers don't just buy treatment—they buy the satisfaction of their needs"

**1. Quality Healthcare -** Patients buy trust in skilled doctors, advanced technology, and accurate diagnosis. What they truly seek is relief from illness and assurance of safe recovery.

**2. Affordability and Financial Ease -** They buy peace of mind through insurance coverage, government schemes (PMJAY, GJAY), and transparent billing. The real need being satisfied is reduced financial burden.

**3. Strategic Location -** Since Sunshine Hospital is the **only major hospital in NH16**, patients buy easy reachability during emergencies and reduced travel time. The need being satisfied here is timely access to healthcare without delays.

**4. Accessibility & Convenience** – Patients value easy admission, quick emergency care, and 24x7 availability. What they actually buy is immediate access to care when they need it most.

**5. Compassionate Care** – Beyond treatment, patients buy empathy, supportive staff behaviour, and emotional comfort. Their underlying need is feeling cared for during a stressful time.

**6. Trust & Reputation** – Customers buy confidence in the hospital's credibility, word-of-mouth recommendations, and positive past experiences. The deeper need being satisfied is security in choosing the right place for health.

## Continuity of Care: Patient Feedback After Discharge:

- **Feedback and Reviews –** Patients often share their experiences through feedback forms, hospital suggestion boxes, or online platforms (Google reviews, social media). Positive reviews highlight good treatment, supportive staff, and clean facilities, while negative ones usually point out billing issues, waiting time, or lack of communication.
- **Follow-up Engagement** – Many patients return for follow-up visits, physiotherapy, or consultations. Their willingness to revisit indicates trust in the hospital's services.
- **Word of Mouth** – Patients share their experiences with friends and relatives. Positive word-of-mouth helps in building hospital reputation, while negative experiences can discourage others.

# CHAPTER-5

# Actual work done, analysis and findings

In today's evolving healthcare environment, maintaining **quality standards and patient safety** has become a key priority for hospitals. The **Quality Department** plays a central role in ensuring that every clinical and administrative process aligns with the **National Accreditation Board for Hospitals and Healthcare Providers (NABH)** guidelines. Quality monitoring is essential not only for accreditation compliance but also for improving overall hospital efficiency, reducing medical errors, and enhancing patient satisfaction.

During my internship in the **Quality Department** of Sunshine Hospital , I was actively involved in data collection, analysis, and reporting related to key performance indicators (KPIs), documentation management, and medication error analysis. The main goal was to understand how continuous quality improvement (CQI) is achieved through systematic monitoring, measurement, and corrective actions.

## Purpose of Quality Monitoring

- **Ensure Patient Safety:** To identify and minimize clinical risks that could harm patients.
- **Improve Hospital Performance:** To measure departmental efficiency using NABH Key Performance Indicators.
- **Maintain Compliance:** To ensure hospital processes adhere to NABH and internal audit requirements.
- **Enhance Data-Driven Decisions:** To analyze trends and provide management with actionable insights.
- **Reduce Errors:** To track and analyze incidents like medication errors and suggest preventive measures.
- **Promote Continuous Improvement:** To support hospital teams in achieving sustained quality enhancement.

# Major Areas of Work

## A. Preparation and Analysis of Key Performance Indicators (KPIs) : -

• Collected, compiled, and verified data for 32 NABH-approved KPIs across all major hospital departments — including Nursing, Pharmacy, Biomedical, Infection Control, Laboratory, and Administration.

• Recorded and analyzed KPI data for July, August, and September using Microsoft Excel.

• Identified monthly performance trends and highlighted deviations from set benchmarks.

• Assisted in the preparation of KPI presentations for departmental and management review meetings.

• Helped in developing corrective and preventive action (CAPA) points based on the findings.

## B. Preparation of the Master List :-

• Prepared the Master List of all hospital departments and documents as per NABH documentation standards.

• Verified document numbering, version control, and effective date for each department's Standard Operating Procedures (SOPs).

• Ensured that all departments had updated policies and manuals available for internal and external audits.

• Maintained proper digital records for document tracking and periodic review.

## C. Medication Error Analysis :-

• Collected and reviewed medication error reports from Nursing and Pharmacy Departments for the year 2025.

• Classified medication errors based on their type — wrong drug, wrong dose, wrong patient, wrong

route, omission, or documentation error.

• Analyzed the root causes using data charts and statistical summaries.

• Prepared a Medication Error PowerPoint Presentation showing error trends, high-risk areas, and recommended preventive measures.

• Suggested process improvements like double-check systems, barcode verification, and improved staff training.

## D. Quality Audits and Observations: -

• Observed internal audit preparations and participated in departmental audits conducted as part of NABH surveillance.

• Monitored record-keeping practices and documentation flow during the audit process.

• Learned about non-conformance reporting (NCR), corrective action plans, and follow-up mechanisms.

• Assisted the Quality team in cross-verifying audit observations and preparing compliance reports.

## E. Data Presentation and Reporting: -

• Designed and developed PowerPoint Presentations summarizing monthly KPI findings and medication error data.

• Presented visual charts, graphs, and comparisons for management discussions.

• Contributed to the hospital's Continuous Quality Improvement (CQI) program by providing analytical insights for data-driven decision-

# PHELEBITIS

- PATIENT NAME – GOURHARL SAHOO
- PATIENT ID – 25103007604
- DATE OF OCCURRENCE – 03/11/25
- DATE OF SUBMITTED – 03/11/25
- DEPARTMENT - MICU

**DATE OF OCCURANCE**

patient Gourharl Sahoo with a peripheral IV line inserted on 30.10.25 was receiving an Inj. Loxicard infusion. Due to a recurring VT Ventricular Tachycardia event, the dosage was continuing as advised by the consultant. The area around the IV site developed redness. The In charge Sister changed the IV line. After three days, it was determined that the patient had developed chemical phlebitis (inflammation of the vein caused by the continuously infused drug

**CORRECTIVE ACTION**

Thrombphob gel locally apply.Remove the IV line and put into another line.Ice pack locally given.

**ROOT CAUSE ANALYSIS**

1.Why? Not properly checked the IV line.
2.Why? Wrong dose vesicant drug used.
3.Why? Chemical drug continuously infused.
4.Why? Providing additional staff training.

**PROPOSED PREVENTIVE ACTION**

1.First remove the IV line and put into another IV line.
2.Thrombphob gel locally apply.
3.Ice pack given.

**DATE OF OCCURANCE**

The patient's planned discharge on 08.08.25 was significantly delayed. Though final TPA approval was received at 7:30 PM, the Billing Staff was slow to process the paperwork. The bill was not closed until 9:41 PM, resulting in a two-hour delay for the patient.

**CORRECTIVE ACTION**

Mr. Santosh contacted and intended to Yubaraj and Sandeep for closing the bill as per the approval letter received from TPA through e-mail . The bill was closed and the patient was handed over the Check out Slips.

**ROOT CAUSE ANALYSIS**

1.Why? Non accountability
2.Why? irresponsibility
3.Why? Lack of knowledge for patient satisfaction
4.Why? : not willing to responsibility / avoiding to face the situation
5.Why?: unprofessional

**PROPOSED PREVENTIVE ACTION**

**proper training for good communication ,motivation , and professionalism to be done requesting for arranging the program as soon as possible**

**COMMENT BY QUALITY DEPARTMENT**

1.Delay in discharge process observed due to accountability and communication between billing staff.
2.Preventive measures including training on communication , professionalism , and timely action to be implemented to avoid recurrence

# PT PS II

- PATIENT NAME – SAVITRI MANI SAHOO
- PATIENT ID – UMR45591
- DATE OF OCCURRENCE – 22/07/25
- DATE OF SUBMITTED – 25/07/25
- DEPARTMENT – NS 2

**DATE OF OCCURANCE**

USG & MRI report revealed to be Rt. Side dermoid ovarian tumor (enlarged 15 x 10 cm).On laparoscopy (intra operative the tumor found to be arising from left ovary & tube twisted (hence left ovarian dermoid cystectomy done).

**CORRECTIVE ACTION**

1.Implementation of SOP (8 points).
2..Check and balances as part-1
3..Observation audit for 15 surgeries at each OT
4..Counselling of surgeon
5.. Counseling & training of OT staff

**ROOT CAUSE ANALYSIS**

1 Why? Pre-surgery SOP not followed.
2.Why? Surveillance & monitoring protocol deficit during teamwork.
3.Why? Deficit training schedule not followed.
4.Why? Incremental training not at team leaders.

**PROPOSED PREVENTIVE ACTION**

1.FirstImplementation of SOP(i) PAC to pre-compulsory(ii) Pre-shift checklist to be implemented(iii) Reading OT checklist(iv) OT transfer checklist(v) Roll out at OT(vi) Post surgery line list(vii) Shift out checklist(viii) Receiving at ICU checklist

- **PATIENT NAME – KABINDRA OJHA**
- **PATIENT ID – UMR44484**
- **DATE OF OCCURRENCE – 10/07/25**
- **DATE OF SUBMITTED – 17/07/25**
- **DEPARTMENT – EMERGENCY**

**DATE OF OCCURANCE**

The found an Atropine ampoule near expiry (08/25) in the Emergency Department inventory, which violates the hospital protocol requiring near-expiry medication to be separated and returned to the Central Pharmacy three months prior. Additionally, cutting tablets are not stored properly, and there is extra medication in the department.

**CORRECTIVE ACTION**

1. Near expiry drug return to pharmacies
2. Extra medication return to the pharmacy.
3.Cuttin drug stored properly

**ROOT CAUSE ANALYSIS**

1.Why? Overlooked by stuff nurse
2.Why? Many due to heavy workload
3.Why? Large no. of discharge and admission
4.Why? : more no. of unplanned discharge
5.Why?: Planned discharge was not completed on previous day and discharge intimation was not followed by staff nurse

**PROPOSED PREVENTIVE ACTION**

**training provided to emergency staff regarding shortage of near expiry drugs , exeese drug , cuttins tablet**

**COMMENT BY QUALITY DEPARTMENT**

1.Observation audit to be done.
2.Explation received

- **PATIENT NAME – DHANITREE SAHOO**
- **PATIENT ID - UMR03934**
- **DATE OF OCCURRENCE – 16/07/25**
- **DATE OF SUBMITTED – 16/07/25**
- **DEPARTMENT – SICU**

**DESCRIPTION OF OCCURRENCE**

The diagnosis :- CKD , ILD THTN . Patient was plan for urgent dialysis . So patient shifted to ns-1 to SICU for dialysis line at 2pm . In during procedure the patient did not cooperate so DR. Arbind has slapped the patient 0n her face. Patient had hematoma on her face

**ROOT CAUSE ANALYSIS**

1.Why? Negligence to their work
2.Why? Document not checked properly
3.Why ? Not followed prescription.
4.Why ? Not followed 10 Rishid of medication administration

**CORRECTIVE ACTION**

1. Immediately stop the medication
2. Indent telmikind ans.
3. Inform on duty doctor change in drug chart

**PROPOSED PREVENTIVE ACTION**

**1. Before indent prescription should be checked properly.**
**2.Fortania provided medication administration and indent process**

**COMMENT BY QUALITY DEPARTMENT**

1.Observation audit to be done.
2.Explanation to be received.

# SICU MONITOR

- PATIENT NAME – GANESHWAR NAYAK
- PATIENT ID – UMR3835
- DATE OF OCCURRENCE – 13/07/25
- DATE OF SUBMITTED – 14/07/25
- DEPARTMENT – SICU

**DATE OF OCCURANCE**

Patient case of CVA & HYPER NATREMIA, critical care Dr. R. K. Behera sir advice inj. Ceftazidime + Sulbactum 3gm - 12 hrly, but Sister given inj. Cefoperazone + Sulbactum 3gm at yesterday night and today morning dose."

**CORRECTIVE ACTION**

1.Immediate stop inj. Cefoperazone + Sulbactum & inform to Dr. R. K. Behera sir.
2.Change antibiotic inj. Xone (1gm) - 12 hrly.
3.Inform to Nursing In charge & Morning Supervisor."

**ROOT CAUSE ANALYSIS**

1. Why? Wrong indent made
2. Why? Wrong administration
3. Why? Didn't follow 10 'R' of medication administration

**PREVENTIVE ACTION TAKEN**

1.Training provided about medication administration

**COMMENT BY QUALITY DEPARTMENT**

1.Observation audit to be done
2. Explanation received from the concerned staff

# MEDICATION ERROR

- PATIENT NAME – KALU BEHERA
- PATIENT ID – 25062803556
- DATE OF OCCURRENCE – 30/06/25
- DATE OF SUBMITTED – 30/06/25
- DEPARTMENT – MICU/304

## Components in Financial Assessment:

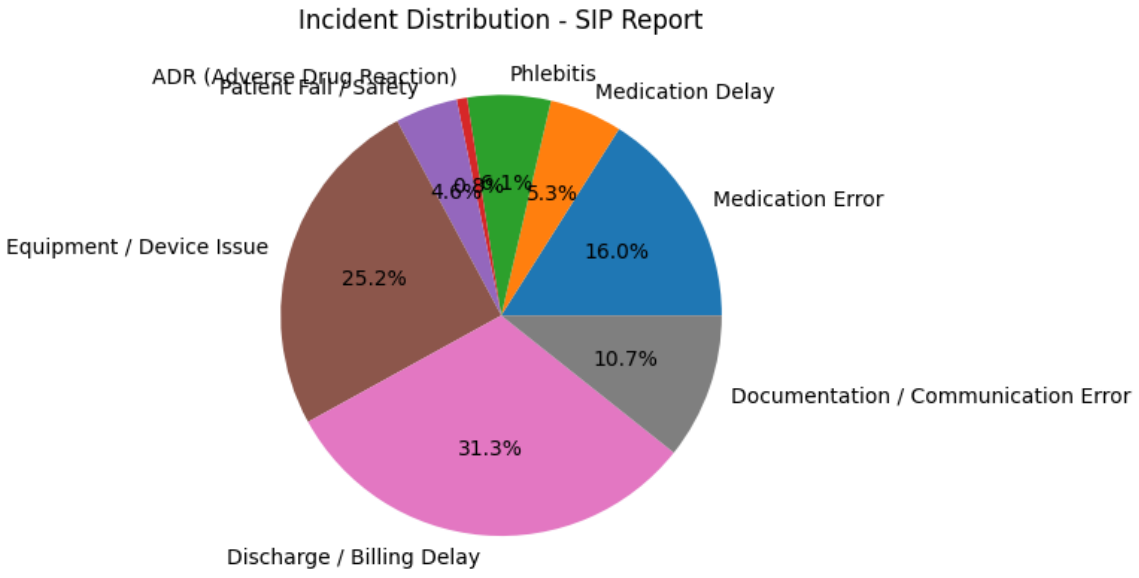
| Component | Role |
|---|---|
| **Key Performance Indicators (KPIs)** | Measure hospital performance across clinical and non-clinical areas, helping identify trends, gaps, and areas needing improvement. |
| **Internal Audits** | Assess departmental compliance with NABH standards, identify non-conformities, and recommend corrective actions. |
| **Incident Reporting System** | Records and analyzes incidents such as medication errors, patient falls, or equipment failures to prevent recurrence. |
| **Corrective and Preventive Actions (CAPA)** | Ensures that identified issues are addressed through systematic corrective measures and preventive planning. |
| **Patient Feedback & Satisfaction Surveys** | Collects patient opinions on hospital services to assess care quality and improve patient-centered practices. |
| **Document Control & Master List** | Maintains accurate, updated policies, SOPs, and manuals for all departments to ensure consistency and traceability. |
| **Quality Review Meetings** | Facilitates regular discussions on KPIs, audit results, and improvement initiatives among departmental heads. |
| **Training & Competency Evaluation** | Enhances staff awareness and skill development to maintain quality standards and healthcare practices. |
| **Risk Management System** | Identifies potential risks in hospital operations and develops strategies to minimize their impact. |

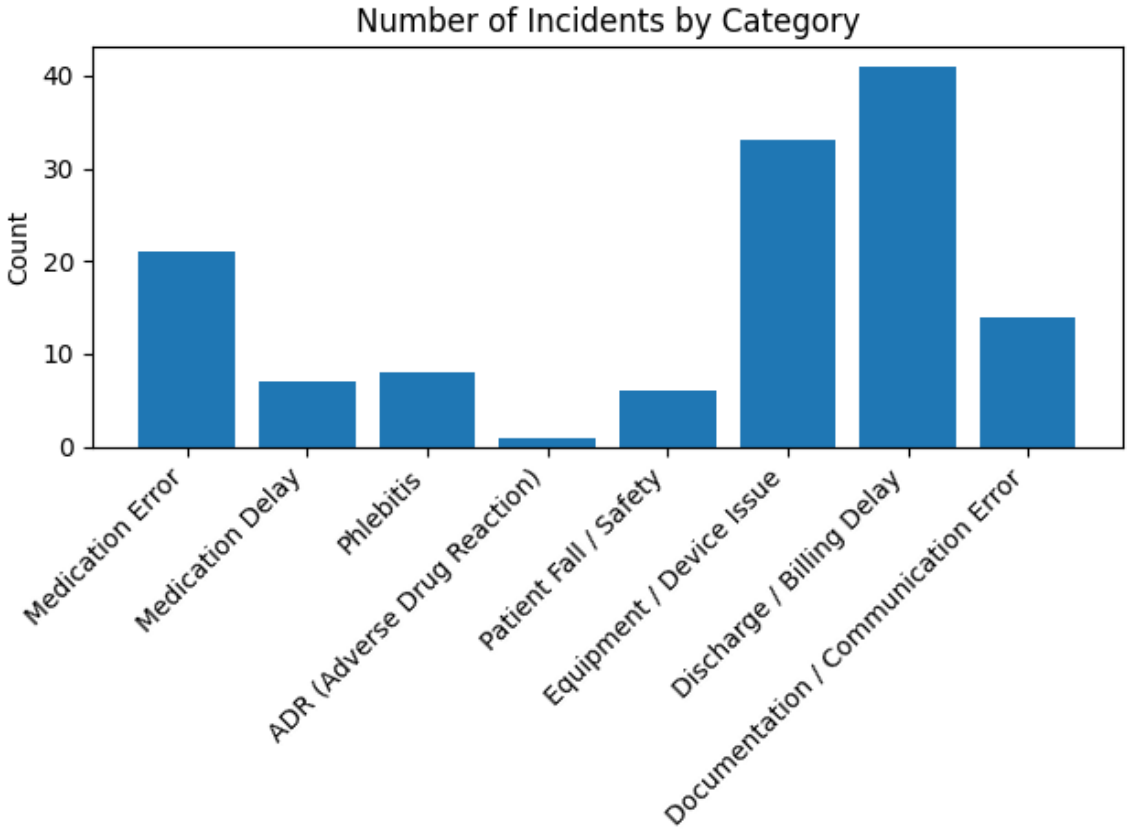
## Real-World Challenges:

| Challenge | Effect | Solution |
|---|---|---|
| **Data Accuracy and Consistency** | Inaccurate or incomplete data leads to unreliable KPI analysis and poor decision-making. | Standardize data collection formats, conduct periodic data audits, and assign data verification responsibilities to each department. |
| **Staff Resistance to Change** | Delays in implementing quality initiatives and non-compliance with new procedures. | Conduct awareness sessions, involve staff in quality planning, and recognize compliance through reward systems. |
| **. Limited Training and Awareness** | Staff remain unaware of NABH standards and quality goals, reducing the effectiveness of monitoring. | Organize regular training, workshops, and refresher sessions on quality and patient safety. |
| **Documentation Overload** | Excessive paperwork leads to errors, delays, and difficulty maintaining updated records | Digitize documents through Hospital Information Systems (HIS) and maintain centralized document control. |
| **. Lack of Interdepartmental Coordination** | Poor communication causes data delays, incomplete reports, and missed audit deadlines. | Conduct regular interdepartmental meetings and appoint quality coordinators for smooth communication. |
| **Inadequate Incident Reporting** | Underreporting hides potential risks and prevents learning from errors. | Encourage a “no-blame” culture, simplify reporting formats, and ensure feedback after each incident report. |

| | | |
|---|---|---|
| **Resource Constraints** | Limited manpower and time reduce the frequency of audits and quality improvement activities. | Optimize staff allocation, integrate quality responsibilities into daily routines, and seek management support for manpower. |
| **Technological Limitations** | Manual data entry increases errors and slows report generation. | Implement electronic KPI dashboards and automated reporting systems. |
| **. Sustaining Continuous Improvement** | Quality momentum drops after accreditation or audits, leading to stagnation. | Establish continuous monitoring teams and link performance reviews to KPI outcomes. |
| **Changing Regulatory Requirements** | Frequent NABH updates cause confusion and outdated practices if not tracked regularly. | Assign a compliance officer to monitor updates and conduct quarterly policy reviews. |

# Incident Analysis Charts






# Contextual Background:

In the modern healthcare system, the Quality Department serves as the backbone of hospital governance, ensuring that patient care is safe, effective, and aligned with national and international standards. The demand for quality in healthcare is no longer optional — it is a

fundamental expectation from patients, accreditation bodies, and healthcare regulators alike. In India, the National Accreditation Board for Hospitals and Healthcare Providers (NABH) establishes comprehensive guidelines that define the standards of excellence for hospital management, clinical care, and patient safety. These standards require continuous monitoring through Key Performance Indicators (KPIs), internal audits, and performance review mechanisms that collectively drive the hospital's Continuous Quality Improvement (CQI) initiatives.

Hospitals face a constant challenge to balance operational efficiency with quality and safety outcomes. To ensure measurable improvement, quality departments use data-driven approaches — collecting and analyzing KPIs such as infection rates, discharge timings, incident reports, medication errors, and patient feedback. Such metrics help identify deviations, root causes, and opportunities for improvement.

In this context, my internship project focused on understanding and participating in the hospital's quality monitoring framework, including the preparation and analysis of 32 NABH-approved KPIs, developing the Master List of all departments, and conducting Medication Error Analysis for the year 2025. These activities provided practical exposure to how hospitals track, evaluate, and enhance their service delivery standards in alignment with NABH requirements.

Through this internship, I gained insight into how the Quality Department acts as a bridge between data and decision-making — transforming raw information into actionable improvements that enhance patient safety, regulatory compliance, and overall hospital performance.

## Importance of the Study:

- **Supports Data-Driven Decision-Making:**
  By analyzing 32 NABH-approved KPIs across different departments, the study provides measurable insights into hospital performance, enabling management to make informed decisions for improvement.

- **Promotes Continuous Quality Improvement (CQI):**
  Regular evaluation of quality indicators helps identify strengths, weaknesses, and trends, supporting the hospital's goal of maintaining continuous quality enhancement
  .

- **Ensures NABH Compliance:**
  The project aligns with NABH standards, helping the hospital remain audit-ready and compliant with quality and safety benchmarks.

- **Improves Patient Safety:**
  The analysis of **medication errors** highlights critical areas where corrective and preventive measures can reduce risks and ensure safer clinical practices.

- **Enhances Interdepartmental Coordination:**
  The preparation of the **Master List** and KPI tracking promotes standardization, accountability, and smoother communication among departments.

- **Strengthens Organizational Efficiency:**
  Quality monitoring supports process optimization, resource utilization, and reduction of errors, ultimately improving hospital efficiency and patient satisfaction.

- **Contributes to Professional Learning:**
  he study provided practical exposure to the real-world functioning of a hospital's Quality Department, offering valuable learning in documentation, data analysis, and quality management systems.

# CHAPTER-6

# Conclusion:

The project titled “Quality Monitoring and Performance Assessment in Hospital Operations” provided critical insights into how the Quality Department functions as the central pillar of hospital governance, ensuring safe, efficient, and patient-centered healthcare delivery. Conducted at *[Hospital Name]*, a multi-specialty institution committed to maintaining NABH standards, the study focused on understanding, analyzing, and improving key quality parameters across various departments.

Through this internship, I gained practical exposure to the hospital’s quality monitoring framework, which involved preparing and analyzing 32 NABH-approved Key Performance Indicators (KPIs) for the months of July, August, and September, compiling the Master List of all departments, and conducting a Medication Error Analysis for the year 2025. Each of these activities deepened my understanding of how quality metrics translate into measurable outcomes and guide hospital management in decision-making.

The KPI analysis revealed the dynamic nature of hospital performance — with certain departments achieving benchmark targets while others required focused corrective and preventive actions (CAPA). It emphasized the significance of regular data tracking, interdepartmental coordination, and accuracy in reporting as fundamental elements of continuous quality improvement (CQI). Similarly, the Medication Error Analysis offered valuable insights into patient safety management, highlighting the need for effective reporting systems, staff vigilance, and error-prevention strategies to ensure safe clinical practices.

The development of the Master List further enhanced understanding of documentation control, version management, and policy standardization — essential for maintaining NABH compliance and audit readiness. Collectively, these tasks demonstrated how documentation, analysis, and feedback mechanisms serve as the backbone of a hospital’s quality management system.

Overall, this internship reinforced the crucial role of the Quality Department in bridging operational data with strategic improvement. It highlighted that quality assurance in healthcare is not a one-time effort but a continuous, collaborative, and data-driven process that requires commitment at all organizational levels. The experience also emphasized that maintaining quality in healthcare is directly linked to patient trust, institutional reputation, and long-term sustainability.

In conclusion, the study reaffirmed that achieving excellence in healthcare depends on a strong quality culture supported by accurate data management, transparent reporting, and a proactive approach to performance improvement. For hospitals like *[Hospital Name]*, this framework not only ensures NABH compliance but also enhances patient satisfaction and strengthens the overall healthcare delivery system.

## Suggestions / Recommendations:

- **Strengthen Data Accuracy and Consistency:**
  Ensure that all departments maintain proper data logs and submit timely, verified reports for KPI analysis. Implement a standardized digital data entry format to minimize manual errors and ensure reliability.
- **Introduce Regular Quality Training Programs:**
  Conduct continuous training sessions for nursing, clinical, and support staff on NABH standards, documentation practices, and incident reporting. This will enhance staff awareness and compliance.
- **Promote a Strong Incident Reporting Culture:**
  Encourage staff to report all types of incidents, near misses, and medication errors without fear of blame. Simplifying the reporting process can help identify recurring issues and prevent future occurrences.
- **Implement an Automated Quality Dashboard:**
  Develop an electronic dashboard or integrate the Hospital Information System (HIS) for real-time monitoring of KPIs and other quality indicators. This will improve efficiency, accuracy, and decision-making speed.
- **Enhance Interdepartmental Coordination:**
  Establish a structured communication system between departments for KPI data submission, audit preparation, and CAPA implementation. Appoint departmental quality coordinators to ensure accountability.
- **Conduct Regular Internal Audits and Follow-ups:**
  Schedule frequent mini-audits and follow-up assessments to track the effectiveness of corrective actions and sustain continuous quality improvement (CQI).
- **Improve Documentation and Version Control:**
  Regularly review and update the **Master List** and departmental Standard Operating Procedures (SOPs) to ensure all documents are current and NABH-compliant. Use version control software or tracking logs to maintain accuracy.
- **Focus on Root Cause Analysis (RCA):**
  For every major incident or deviation in KPIs, conduct a structured Root Cause Analysis to identify underlying issues rather than addressing only the symptoms.
- **Enhance Patient Feedback Mechanisms:**

Introduce electronic or kiosk-based patient satisfaction surveys to gather real-time feedback and identify improvement areas in service delivery.

- **Sustain Continuous Quality Improvement (CQI) Culture:**

  Quality improvement should be an ongoing process, not limited to audit or accreditation periods. Regular review meetings, open communication, and recognition of quality initiatives can help sustain CQI culture.

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