COMPLIANCE AUDIT OF PATIENT RECORDS IN A TERTIARY CARE HOSPITAL

Dissertation Submitted to

The IIHMR University, Jaipur

for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

by

Apurva Preeyam

Under the Supervision and Guidance of

Dr. Nutan P. Jain

2025

Global Health
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Date: 12.06.2025

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DECLARATION BY STUDENT

I hereby declare that this dissertation titled Compliance Audit of Patient Record in a Tertiary Care Hospital is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Apurva Praveyan

APURVA PRAVEYAM

Date 17/6/2025

Abstract

HM-28. COMPLIANCE AUDIT OF PATIENT RECORDS IN A TERTIARY CARE HOSPITAL

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Advisor: Dr. Nutan P. Jain

Keywords: Medical Records, compliance, clinical audit

Introduction:

In the evolving landscape of hospital quality management, accurate and timely documentation in patient medical records is critical to ensuring patient safety, clinical accountability, and institutional readiness for accreditation standards such as those mandated by the National Accreditation Board for Hospitals & Healthcare Providers. This study was undertaken to conduct a comprehensive compliance audit of patient records in a quaternary care setting, with specific emphasis on medical management consent, surgical consent, critical alerts, and interdepartmental cross-referencing.

Objectives:

The objectives of the study are to: (i) conduct audit (pre and post intervention) for patient records with special focus on consent documentation, cross referencing and critical alert in a tertiary care hospital; (ii) analyse/ calculate the level of compliance in patient records (pre and post intervention); (iii) find out gaps / actions in compliance with institutional and NABH documentation standards; and (iv) implement key actions for improving documentation compliance

Methodology:

The study was conducted at Medanta – The Medicity, Gurugram, across six major departments: Gastroenterology, Cardiology, Nephrology, Urology, Internal Medicine, and Respiratory & Sleep Medicine. The audit was performed in two phases: pre-intervention (March 11-25, 2025) and post-intervention (May 5-20, 2025). A total of 105 inpatient records were reviewed in each phase using standardized audit checklists aligned with NABH documentation policies. The intervention phase (March 26 to May 5, 2025) included feedback sessions with departmental heads, pre-screening of files by nursing staff before submission to the Medical Records Department, sensitization of duty doctors and consultants, and regular reporting to departmental quality champions.

Results:

· In medical management consent, major improvements were observed in the documentation of attendant's name (+28%), reason for third-party consent (+23%), and attendant time (+14%).

· In surgical consent, high-risk acknowledgment (+18%), witness fields (+10–14%), and attendant details (+20%) showed considerable gains, although minor declines were noted in doctors' authorization fields (−2% to −4%).

· Cross-consultation compliance improved notably in fields like 'Specialty Requested To' (+40%), 'Type of Reference' (+40%), and 'Purpose of Consultation' (+37%).

· In critical alert documentation, the most notable gains were in signature of the doctor (+58.6%), documentation within 30 minutes (+38.1%), and employee number inclusion (+64.3%).

Conclusion:

The study demonstrated that focused interventions such as training, feedback loops, and accountability frameworks can significantly improve documentation compliance in high-pressure clinical settings.

Acknowledgement

I would like to express my heartfelt gratitude to all those who have supported and guided me throughout the course of this study. First and foremost, I extend my sincere thanks to the entire staff of Medanta, Gurgaon for their cooperation, encouragement, and valuable insights during my internship. Their unwavering support and willingness to share practical knowledge greatly enriched my understanding of clinical operations and documentation practices. I am especially grateful to my university mentor, Dr. Nutan P Jain, for her constant guidance, constructive feedback, and encouragement at every stage of this dissertation. Her mentorship was instrumental in shaping the direction and quality of my research. I also acknowledge the faculty and peers at IIHMR Jaipur for fostering an environment of learning and inquiry. This work would not have been possible without the contributions and support of all these individuals.

CONTENTS

ABBREVIATIONS

ICU	Intensive Care Unit
NABH	National Accreditation Board for Hospitals & Healthcare Providers
IPD	Inpatient Department
OPD	Out Patient Department
OCC	Operation Command Centre
CQI	Continuous Quality Improvement
EHR	Electronic Health Record
MRD	Medical Records Department
SOP	Standard Operating Procedure
PDCA	Plan Do Check Act
TAT	Turn Around Time

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BACKGROUND

This dissertation is submitted in partial fulfilment of the Master of Business Administration in Hospital and Health Management (MBA-HHM) at IIHMR University, Jaipur. The project was undertaken during an internship at Medanta – The Medicity, Gurugram, a quaternary care multi-speciality hospital accredited by NABH. During the course of the internship, the Intern was posted across multiple clinical and administrative departments to gain a comprehensive understanding of hospital operations, departmental workflows, and practical challenges encountered in the delivery of quality healthcare services.

One of the key areas of focus during the internship was the Inpatient Department (IPD), where the intern closely observed the documentation practices followed in wards and critical care units. It was during the time frame of 17th March 2025- 30th May 2025 that a recurring challenge was encountered: inconsistent and incomplete documentation in critical areas such as informed consent, critical alert entries, and cross-consultation records

Recognizing the potential clinical, legal, and accreditation-related implications of such documentation gaps, the intern collaborated with the hospital's Quality Department to develop and execute a focused compliance audit project.

This dissertation, therefore, documents a quality improvement initiative aimed at evaluating the level of compliance with NABH-recommended documentation standards in the inpatient setting. The project involved a pre-intervention audit, implementation of targeted corrective measures, and a post-intervention assessment to measure improvement. The findings not only provide insights into current documentation practices but also propose sustainable solutions to enhance compliance and support institutional readiness for future NABH assessments.

ABOUT THE HOSPITAL- MEDANTA, THE MEDICITY

Medanta – The Medicity, founded by renowned cardiac surgeon Dr. Naresh Trehan, was established with the aim of addressing the pressing demand for a cutting-edge super- specialty healthcare facility in India. The inception of Medanta was rooted in the challenges faced by Indian patients who were unable to afford expensive treatments overseas. Recognizing this gap, Dr. Trehan envisioned creating a healthcare institution that delivered top-tier medical services by integrating advanced technologies with traditional Indian healing practices, all at a cost-effective rate. This vision laid the groundwork for Medanta, which went on to become one of India's pioneering private hospitals.

The institution was created with a sole objective — to make quality healthcare accessible and affordable for everyone. Medanta's mission centers around providing superior medical care through the establishment of centers of excellence focused on integrated healthcare delivery, medical research, and education.

The core principles guiding Medanta are deeply embedded in its operational philosophy and are vital in maintaining its leadership in the healthcare sector. The organization emphasizes achieving excellence through outstanding performance and adherence to ethical practices. With a strong emphasis on integrity and the courage to uphold what is morally right, the hospital maintains high standards by prioritizing patient welfare. Medanta fosters a culture of going beyond expectations in patient care, driven by compassion and a commitment to service. Teamwork, adaptability, innovation, and a continuous drive for improvement are encouraged through a collaborative and learning-oriented environment.

Medanta’s model of healthcare delivery enables highly specialized medical professionals to offer world-class care using a multidisciplinary, team-based strategy. The hospital infrastructure has been developed to ensure patient safety and comfort, equipped with modern technologies to facilitate sophisticated diagnostic and therapeutic procedures. The clinical workforce includes acclaimed doctors, many of whom have trained at prestigious global institutions and have adopted the "Medanta way" of practicing medicine.

Team collaboration is a cornerstone of Medanta’s culture. The hospital adopts an integrated multispecialty approach where departments work in harmony without gaps in service delivery. With its full-time doctor engagement model — where the majority of physicians are exclusively associated with Medanta — the hospital ensures a seamless, cooperative approach to patient care. Specialties Offered at Medanta – The Medicity Medanta encompasses a wide array of highly specialized institutes and departments, each dedicated to delivering expert medical care:

a) Institute of Musculoskeletal Disorders and Orthopedics

b) Cancer Institute (including Breast Cancer, Head and Neck Oncology, Medical and Hemato-Oncology, and Radiation Oncology)

c) Institute of Critical Care and Anesthesiology

d) Institute of Digestive and Hepatobiliary Sciences (Gastroenterology, GI Surgery, GI Oncology, and Bariatric Surgery)

e) Institute of Chest Surgery (Lung Transplant and Chest Onco-Surgery)

f) Heart Institute (Cardiac Surgery, Clinical and Preventive Cardiology, Electrophysiology & Pacing, and Interventional Cardiology)

g) Institute of Obstetrics and Gynecology

h) Kidney and Urology Institute (Nephrology, Urology & Andrology)

i) Institute of Liver Transplantation and Regenerative Medicine

j) Institute of Neurosciences

k) Ayurveda & Traditional Medicine

l) Clinical Immunology and Rheumatology

m) Dental and Maxillofacial Sciences

n) Dermatology

o) Emergency and Trauma Services

p) Endocrinology and Diabetes Care

q) Gynecology and Gynae-Oncology

r) Internal Medicine

s) ENT, Head & Neck Surgery

t) Department of Laboratory Medicine, Pathology, and Blood Bank Services

u) Ophthalmology (Eye Care)

v) Pediatrics and Neonatology

w) Peripheral Vascular & Endovascular Surgery

x) Radiology and Advanced Imaging

y) Respiratory and Sleep Disorders

z) Plastic, Aesthetic, and Reconstructive Surgery.

Other administrative department include the medical superintendent office were all the legal compliance and hospital functions and taken care of next is the quality department which functions to improve and maintains the standards of the hospital in relation to clinical treatment, documentation and other non-clinical services.

Medanta Mediclinic functions as a specialized outpatient branch of Medanta, created to bring top-tier healthcare to patients' doorsteps via a network of satellite clinics.

These clinics are designed to provide expert consultations, diagnostics, and treatment for ailments that may not require hospital admission but still need specialized care.

The clinics are outfitted with the latest medical equipment and infrastructure to facilitate precise diagnostics and efficient treatment strategies, reflecting the same standards of excellence as Medanta – The Medicity services span across disciplines like Cardiology, Endocrinology, Gastroenterology, Neurology, Orthopedics, and Pulmonology, among others. The care model focuses on a multidisciplinary approach, ensuring that every patient receives attention tailored to their unique health needs. This system allows patients to benefit from the collective knowledge and experience of Medanta's distinguished specialists.

Medanta Mediclinic enhances access to quality care by offering a wide range of personalized services — from general health check-ups and specialist consultations to comprehensive follow-up care — all within a comfortable and professional outpatient setting. These clinics help broaden Medanta's commitment to making world-class healthcare more accessible to communities beyond the main hospital campus

DISSERTATION TITLE

COMPLIANCE AUDIT OF PATIENT RECORDS IN A TERTIARY CARE HOSPITAL

CHAPTER 1
INTRODUCTION

In the dynamic and increasingly complex healthcare environment, ensuring the accuracy, completeness, and timeliness of clinical documentation is critical to delivering safe and high-quality patient care. Patient records serve as the foundation for continuity of care, communication between healthcare providers, legal documentation, and evidence for audit and research. Among the most critical components of these records are consent documentation, critical alerts value documentation, and cross-referencing—each of which plays a pivotal role in protecting patient rights, enhancing safety, and ensuring multidisciplinary care. However, compliance with documentation standards often remains suboptimal, especially true in a tertiary and quaternary care hospital like Medanta Medicity Gurgaon, which handles a very high volume of patients with complex and often critical conditions requiring multidisciplinary intervention.

This project, undertaken as part of the Quality Department's continuous improvement initiative, focuses on auditing and enhancing documentation compliance in accordance with the standards laid out by the National Accreditation Board for Hospitals & Healthcare Providers (NABH). NABH emphasizes the importance of documentation under its chapters on Care of Patients, Patient Rights and Education, and Continuous Quality Improvement (CQI). In particular, NABH mandates timely documentation of critical alerts, comprehensive informed consent, and traceable records of interdepartmental consultations—all of which directly impact patient safety and organizational accountability

Similar documentation audits have been conducted in India and globally, highlighting common patterns of non-compliance. For instance, Kumar and Thomas (2015) conducted an audit of surgical consent forms in South India and reported a 32% rate of incomplete documentation, often missing essential details such as patient identifiers and risk disclosures. Patidar et al. (2018), in a study conducted in the ICUs of a Rajasthan-based hospital, noted that poor interdepartmental communication was a primary reason for incomplete cross-reference documentation. Additionally, Spatz et al. (2020) assessed informed consent quality across U.S. hospitals and found that most consent documents lacked clarity and completeness, suggesting that the issue of documentation inadequacy is both systemic and international. These studies provide a strong foundation and rationale for the current project, which seeks to contribute further by integrating a practical, department-specific intervention model.

Despite the critical importance of these documentation elements, many

hospitals— including tertiary care centers—face significant challenges in achieving full compliance with hospital policies and regulatory standards such as those set by NABH. The study will focus on identifying specific areas where documentation falls short and exploring the underlying causes, whether they are related to system design, human factors, or institutional policies.

Research Question

What is the level of compliance in patient records at Medanta hospital, Gurgaon?
What are the gaps in patient record?
How to improve quality of documentation?

Objectives:

i. To review the NABH audit guidelines related to cross reference, medical and surgical consent forms and critical alert value.
ii. To analyze/ calculate the level of compliance in medical records.
iii. To conduct audit for patient record with special focus on consent documentation, cross referencing and critical alert in Medanta Hospital.
iv. To find out gaps in compliance with institutional and NABH documentation standards.
v. To suggest actionable recommendations for improving documentation compliance.

CHAPTER 2

REVIEW OF LITERATURE

S. No	Author	Year	Title	Objective	Methodology	Salient Feature
1.	Ritu Taneja, Pradeep Verma, Rakesh Singh	2023	Electronic Health Records and Critical Alert Flagging: An ICU Audit from Haryana https://www.ijccm.org/doi/IJCCM/pdf/10.5005/jp-journals-10071-24123	1.determine the rate of missed or unflagged critical alerts. 2.To evaluate the presence of standardized protocols for alert escalation. 3.To suggest system-based solutions for real-time documentation.	Purposive sampling 200ICU Records	1.Lack of standardized EHR protocols led to 35% of records missing critical alert flags. 2.They advocated for the development of auto-flagging and escalation tools embedded in hospital software to ensure timely clinical response and documentation.
2.	Sharma & Khurana	2022	Audit of Surgical Consent Forms in Tertiary Care Settings: Exploring Gaps and Solutions https://www.jcdr.net/article_fulltext.asp?issn=0973709x&year=2022&month=July&volume=16&issue=7&page=OC01&id=16429	1.To measure the frequency of missing or unclear consent components. 2.To assess	750 surgical files Random sampling	1. Noted that 12% of consent forms were missing time/date stamps, and patients had limited recall of potential surgical risks. 2.Adoption of

				patient understanding of consent. 3.To explore the utility of digital or checklist-based improvements		electronic consent systems to streamline documentation and enhance patient understanding of surgical procedures. 3. The study supported the integration of digital checklists and multimedia tools for better patient understanding and consent validity.
3.	S. Banerjee, R. Iyer, G. Nayak	2021	NABH Compliance Audit in Critical Care Units: Focus on Documentation Standards https://www.researchgate.net/publication/359336692_strategies_to_ensure_high_compliance_of_nabh_in_a_multi_speciality_hospital_in_pune_city	1.To identify incomplete or missing documentation in critical care units. 2.To assess department-wise variability in compliance. 3.To recommend strategies to standardize documentation practices across departments.	600 records Stratified sampling	1.Inconsistent use of consent templates across departments, with 21% lacking physician signatures, indicating non-compliance with NABH standards. 2. Establishment of centralized compliance audits and standardization of documentation practices across departments. 3. The study recommended

						department-level audits and the establishment of a centralized documentation compliance team to ensure adherence to NABH standards
4.	World Health Organization – Eastern Mediterranean Regional Office	2020	Quality of Documentation of Electronic Medical Information Systems at Primary Health Care Units in the EMRO Region https://www.emro.who.int/emhj-volume-20-2014/volume-20-issue-2/quality-of-documentation-of-electronic-medical-information-systems-at-primary-health-care-units-in-alexandria-egypt.html	1.To identify strengths and gaps in EHR documentation formats. 2.To assess physician and patient identification completeness. 3.To offer policy recommendations for structured digital documentation.	Secondary data review	1.Electronic records had higher completion rates for physician identification but lower for complaint/examination and diagnosis/treatment sections compared to paper-based records. 2. Highlights the need for improving the quality and completeness of electronic medical records to ensure comprehensive patient documentation. 3. The study advocated for structured formats and digital audit trails to

						reinforce accountability and reduce missed entries, particularly in under-resourced facilities
5.	K. Srinivas, M. Rajan	2019	Audit of Clinical Documentation Accuracy in Inpatient Records at a Tertiary Hospital in Chennai https://www.jcdr.net/article_fulltext.asp?issn=0973709x&year=2019&month=May&volume=13&issue=5&page=OC01&id=12845.	1.To measure compliance with documentation standards. 2.To assess time-lags and incomplete entries for critical information. 3.To recommend improvements for record-keeping during clinical rounds.	450 inpatient records Simple random sampling	1.Documentation of critical values was often delayed beyond one hour in 24% of cases, potentially compromising patient safety. 2. Regular compliance training sessions for healthcare providers to enhance timely documentation practices. 3. The authors recommended regular staff sensitization and the introduction of documentation checkpoints during clinical rounds to improve compliance and accountability.
6.	Nidhi Patidar, Rekha Meena, S. Rathi	2018	Documentation of Cross-Reference and Interdepartmental Consultation in ICU: A Compliance Audit	1.To identify missing or delayed entries	300 records Purposive sampling	1.Found that 40% of cross-referrals lacked specialist comments,

			https://www.ijccm.org/doi/IJCCM/pdf/10.5005/jp-journals-10071-23125	in cross-reference documents. 2.To evaluate communication gaps between departments. 3.To propose documentation protocols to improve response time and accountability.		indicating gaps in interdepartmental communication. 2.Implementation of internal referral protocols with turnaround time benchmarks to improve documentation and patient care continuity. 3. The study emphasized the need for a standardized internal referral format with clearly defined responsibilities and response timelines, especially in high-intensity units like ICUs.
7.	Shazia Sheikh, Ahmed Nasir, Saba Rizvi ○ .	2016	Medical Record Audit for Consent and Alert Documentation in a Tertiary Care Hospital in Pakistan https://jpmi.org.pk/index.php/jpmi/article/view/8	1.To determine the percentage of undocumented or incomplete alerts and consent forms. 2.To explore common documentation	1,000 records Convenience sampling	1.Identified that 35% of critical alerts were communicated verbally but not documented, posing medico-legal risks. 2.Integration of alert systems into electronic health

				errors in critical care settings. 3.To recommend practical improvements in medical record management		records to ensure proper documentation and communication of critical alerts. 3. The researchers highlighted the widespread practice of verbal communication without written evidence and stressed the need for integrated alert systems in EHR to mitigate medico-legal risks.
8.	M. Kumar, A. Thomas	2015	An Audit of Informed Consent in Surgical Practice in South India https://pubmed.ncbi.nlm.nih.gov/21409925/	**1.**To identify missing or incorrect components in consent forms. 2.To evaluate compliance with legal and ethical standards. 3.To recommend improvements to the consent-taking process.	500 records Systematic random sampling	1.A significant proportion of consent forms were incomplete, with missing patient identifiers and lack of risk disclosure. 2.Implementation of standardized checklists and staff re-training to ensure completeness and compliance in consent documentation. 3. The authors concluded that

						surgical departments require not only structural changes in documentation formats but also routine training of residents and nursing staff to ensure legal compliance.

CHAPTER 3
METHODOLOGY

An observational study was employed, involving three distinct phases—phase I, phase II and phase III—to allow the measurement of improvements following targeted corrective measures. The study was conducted at Medanta – The Medicity, Gurgaon, a quaternary care institution recognized for its clinical excellence and adherence to accreditation norms. Selected departments included Gastroenterology, Internal Medicine, Cardiology, Nephrology, Urology, and Respiratory and Sleep Medicine, each chosen for their relevance to high documentation workloads and procedural involvement.

The methodology outlines all essential components such as research design, study population, sampling techniques, study tools, data collection and analysis procedures, and ethical safeguards. Both quantitative assessments and descriptive analytics were used to derive meaningful insights, and wherever required, inferential statistics were employed to test the significance of findings. This chapter also includes detailed operational definitions to standardize the interpretation of key concepts, such as informed consent, critical alerts, and cross-referencing.

3.1 Study Setting

The study was conducted at Medanta – The Medicity, Gurgaon, a quaternary care, NABH-accredited, multi-specialty hospital in Haryana, India

3.2 Study Population

The study population comprised inpatient files from the six departments. These files were selected for their relevance to the key documentation areas.

Inclusion Criteria:

i. Files of inpatients who underwent surgical or anesthesia-related procedures.
ii. Records with documented medication management consent.
iii. Records involving interdepartmental consultations, such as referrals or second opinions.
iv. Patients admitted for at least 24 hours.

Exclusion Criteria:

v. Daycare patients (those receiving care for less than 24 hours, e.g., chemotherapy).
vi. Outpatient records or records with incomplete access.
vii. Patients admitted in the ICU.

3.3 Duration of the Study

The data collection was done over a six-week period from 11th April 2025 to 20th May 2025.

3.4 Study Approach

The study adopted a quantitative research approach to systematically assess the level of compliance in patient records with respect to key clinical documentation elements: surgical consent, anesthesia consent, medication management consent, critical value alerts, and cross-referencing. This approach was chosen to generate objective, measurable, and statistically analyzable data crucial for ensuring adherence to clinical standards and NABH (National Accreditation Board for Hospitals & Healthcare Providers) accreditation requirements.

3.5 Sample Size and Sampling Technique

Department	**Number of files reviewed**	
	Pre-intervention Phase (April 11-25, 2025)	Post-intervention Phase (May 5-20, 2025)
Gastroenterology	18	18
Internal Medicine	17	17
Cardiology	18	18
Nephrology	17	17
Urology	17	17
Respiratory and Sleep Medicine	18	18
Total files	105	105

Phase I (Pre intervention Phase)- Any of the 10 files were reviewed out of which any 7 files with correct documentation were considered for the study making it a total of 105 files in 15 days; presented the key results along with major gaps identified, before the inhouse experts; and developed action plan (corrected measures).

Phase II (Intervention Phase)- Action Plan was implemented for a span of 10 days to improve the documentation compliance.

Phase III (Post Intervention Phase)- Any of the 10 files were reviewed out of which any 7 files with correct documentation were considered for the study making it a total of 105 files in 15 days

3.6 Data Collection and Tool

Two core instruments were developed and validated under the study:

1. Audit Checklist
   i. Developed based on NABH documentation standards and hospital policies.
   ii. Categories: Consent, Critical Alerts, Cross-Referencing.
   iii. Marked for presence, completeness, and timeliness of documentation.
2. Data Collection Sheet
   i. Used to systematically enter compliance data from each file in a excel sheet.
   ii. Designed to support digital entry and statistical processing.
   iii. Facilitated inter-departmental comparisons.

3.7 Operational Definitions

- Consent Documentation: A legal form signed by the patient or legal guardian prior to procedures, indicating informed acceptance of risk, benefit and alternative procedure. For minors/unconscious patients, consent by an attendant is mandatory with the reason for giving the consent.
- Critical Alerts: Any clinical/laboratory value outside normal parameters that could threaten patient safety. NABH guidelines mandate timely escalation and documentation within 30 minutes.
- Cross-Referencing: Interdepartmental communication documented in the patient record (manual/electronic), categorized into STAT (immediate), urgent (within 4 hours), and routine (within hours), with both request and response properly recorded.

3.8 Data Collection Procedure

- Structured data collection tools — such as audit checklists— were employed to extract numerical data from a representative sample of inpatient files across various Inpatient department. Each patient record was evaluated against predefined compliance indicators, with binary or scaled scoring assigned to each documentation component.
- This structured method ensured consistency and minimized observer bias. The use of numerical data enabled the study team to quantify the frequency and percentage of compliance in each domain and perform statistical comparisons across departments, units, and shifts.
- Permission was obtained from the Medical Superintendent of the hospital for analyzing patient files.
- Inpatient files were analyzed for completeness and accuracy of patient files which includes details and signature of patient and attendant present in the consent form, critical value properly documented with advice included in it, cross reference addressed in time with proper documentation of date, time and purpose of consultation written.
- Audit was conducted on the basis of checklist based on NABH

guidelines and hospital documentation policies.

- Data sheet was maintained to record findings from patient files.
- Data was collected from 11th April to 25th April 2025 marking it as phase one or the pre intervention phase where the level of compliance is checked before applying intervention.
- In total 7 files were analyzed each day leading to 105 files in 15 days.
- After phase one interventions were done between 26th April to 5th May 2025
  i. Feedback sessions with departmental heads.
  ii. assigning nursing staff to each department to check inpatient file before sending it to the MRD department for proper documentation.
  iii. Training the duty doctor to remind the consultant on their daily rounds to properly fill the various documents.
  iv. Regularly informing the quality champion of each doctor's team regarding the non-compliances seen in the files of patient admitted under them.
- From 6th of May 2025 file analysis as Phase two or the post intervention phase was done again to identify the percentage of improvement in the documentation till 20th of May again 7 files a day making it 105 files in the next 15th days.

3.9 Data Analysis

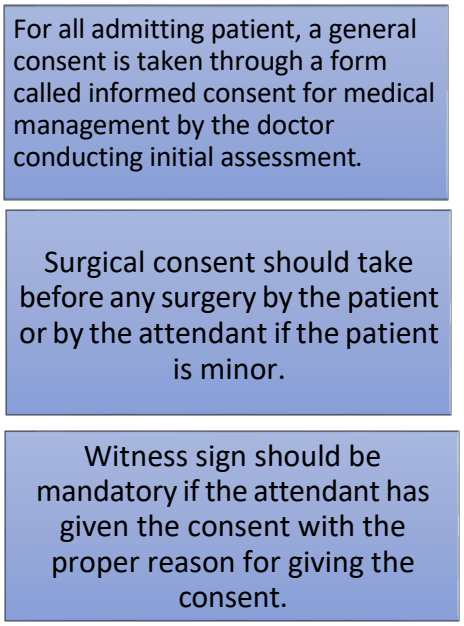
- Descriptive Statistics:
  i. Frequencies and percentages were calculated for compliance in each domain.
  ii. Comparative analysis across departments was conducted to assess performance.
- Visualization Tools:
  i. Bar graphs and tables were used to illustrate compliance gaps and improvements.

3.10 Ethical Considerations

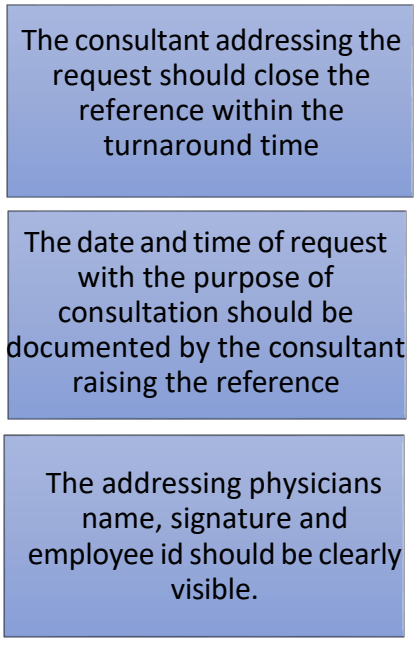
- Informed Consent: As the study involved only analysis of hospital records, patient consent was not required. However, institutional and departmental approvals were obtained.
- Voluntary Participation: Staff members assisting with records or clarifications participated voluntarily.
- Confidentiality and Anonymity:
  i. No personal identifiers were recorded or disclosed.
  ii. All files were accessed under hospital supervision.
- Data Security:
  i. All records were stored digitally in password-protected systems

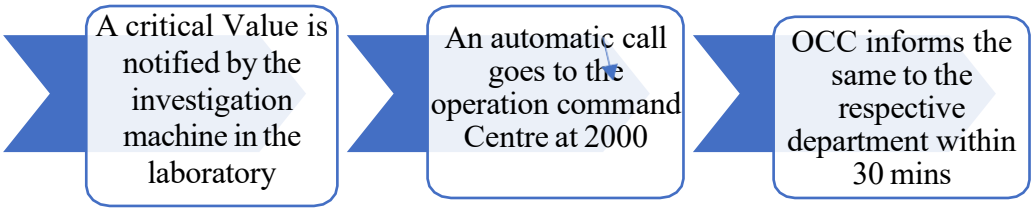
CHAPTER 4
RESULTS

This chapter presents the findings of a compliance audit focused on three critical components of hospital documentation: Medical Management Consent, Surgical Consent, Critical Alerts, and Cross-Consultations in a quaternary care hospital. The results are drawn from a comparative analysis between Phase 1(11th March to 25th March) and Phase 2 (5th May to 20th May) data collection phases where intervention was done between 26th of April to 5th of May. The goal was to assess the effectiveness of corrective interventions—such as staff re-orientation, revised checklist use, and targeted feedback sessions—on improving documentation compliance across departments**.** The guidelines for consent form documentation is as follows:



The guidelines related to cross consultation are as follows





The study was conducted in phased manner. There were three phases:

4.1 Phase I: Pre-test data collection

Data was collected during 11th April 2025 to 25th April 2025 to analyze the extend compliance in various documents. Inpatient files were analyzed on a daily basis.

4.2 Phase II Interventions phase

Post initial data collection some interventions were done for about 10 days during 26th April to 5th May, 2025 to address the corrective measures to increase the compliance of documentation which include:

4.2.1*Feedback Sessions with Departmental Heads*

These sessions were conducted to:

i. Share audit findings and highlight specific areas of non-compliance within their respective departments.
ii. Discuss department-wise documentation trends, helping heads understand where lapses were occurring (e.g., surgical consent, critical alert documentation, etc.).
iii. Collaboratively devise action plans tailored to each department to improve documentation standards.
iv. Encourage accountability by aligning documentation compliance with departmental performance metrics.

4.2.2*Assigning Nursing Staff for File Pre-screening Before MRD Submission*

This intervention aimed to add a preliminary checkpoint to improve file completeness**.**

i. Designated nursing staff were trained and allocated to each department to scrutinize inpatient files before submission to the Medical Records Department (MRD).
ii. Their role was to ensure that key documents such as consent forms, treatment records, progress notes, and critical alerts were properly filled and signed.
iii. This step acted as a quality filter to prevent incomplete or non-compliant files from reaching MRD and becoming part of permanent hospital records.

4.2.3*Training Duty Doctors to Remind Consultants During Daily Rounds*

i. To strengthen accountability at the consultant level:
ii. Duty doctors were sensitized and trained to prompt consultants during their daily rounds to ensure timely and complete documentation.
iii. This included:
   a. Checking for filled treatment plans, progress notes, and consent forms.
   b. Highlighting missing documentation in real time.
iv. This created a real-time feedback loop, minimizing reliance on retrospective correction and fostering a culture of proactive compliance.

4.2.4 *Regular Reporting to Quality Champions Regarding Non-Compliances*

i. To maintain ongoing oversight and drive departmental improvement:
ii. Quality champions (senior representatives from each consultant's team) were regularly updated with case-specific non-compliance reports.
iii. These updates included:
   a. Names of patients whose files showed documentation lapses.
   b. Nature of the non-compliance (e.g., missing high risk consent, undocumented alerts).
iv. The goal was to foster ownership within each consultant's team and to enable targeted corrective actions.

4.3 Phase III: Post Test Data Collection

Post intervention data collection was done during the period of (5th May 2025- 20th May,2025) to check the improvement if any

Table 1 Percent distribution of Pre vs. Post-Intervention in the Compliance regarding Medical Management

Component	Pre-Intervention	Post-Intervention	% Change
Date of Admission	82	86	+4%
Patient Name	33	44	+11%
Patient Date	38	49	+11%
Patient Time	37	50	+13%
Patient's Signature	31	36	+5%
Reason for Patient Unable to Give Consent	8	31	+12%
Attendant Name	41	69	+15%
Attendant Relationship	59	63	+4%
Attendant Date	55	64	+9%
Attendant Time	50	64	+14%
Signature of Attendant	57	70	+13%
Name of Doctor	98	98	0%
Doctor's Signature	98	99	1%
Date and Time of Doctor's Entry	82	82	0%

Significant Difference was seen in:

- Attendant Name (+15%)
- Reason for Patient Unable to Consent (+12%)
- Attendant Time (+14%)
- Patient Time (+13%)
- Signature of Attendant (+13%)

Table 2 Percent distribution of Pre vs. Post Intervention in the Compliance regarding Surgical Consent

Parameter	Pre intervention	Post intervention	% change
Patient Name	88	88	0
Suffering from (symptoms)	90	90	0
Provisional/Final Diagnosis	96	96	0
Benefits	94	97	+3
Risks	94	96	+2
Alternative Treatment	62	74	+12
Authorization for Surgery	96	90	−6
Patient's Signature	62	72	+10
Patient Date	60	72	+12
Patient Time	60	72	+12
Doctor's Name	96	92	−4
Doctor's Signature	96	94	−2
Doctor's Date	92	94	+2
Doctor's Time	84	82	−2
Witness Name	52	66	+14
Witness Signature	50	64	+14
Witness Date	52	62	+10
Witness Time	52	58	+6
Reason for Attendant's Consent	18	21	+3
Attendant's Name	44	64	+20
Relationship	44	64	+20
Attendant's Signature	46	60	+14
Attendant's Date	44	54	+10
Attendant's Time	42	52	+10
High Risk Acknowledgment	6	24	+18

Significant Difference was seen in:

- High Risk Acknowledgment (+18%)
- Attendant's Name and Relationship (+20%)
- Witness-related fields (+10% to +14%)

Table 3 - Percentage distribution of Pre or Post intervention in Compliance improvement regarding Anesthesia Consent

Field	Pre Intervention	Post Intervention	% Change
Patient name	100	100	0%
Name of the surgery	48	54	+12.5%
Witness name, date and time	48	50	+4.17%
Reasons for consent	17	18	+5.06%
Attendant consent	35	38	+8.57%
High risk consent	13	13	0%
Anesthetist's name, sign, date and time	83	88	+6.02%

Significant Difference was seen in:

- Name of the surgery: +12.5%
- Attendant consent: +8.57%
- Anesthetist's name, sign, date and time: +6.02%
- Witness name: +4.17%

Table 4- Percentage distribution of compliance improvement for Cross Consultation form

Parameter	Pre intervention	Post intervention	% Change
Date and Time of Request	15	18	20%
Specialty Request To	15	21	40%
Type of Reference	10	14	40%
Purpose of consultation	16	22	37%
Consultation Date and Time	59	61	3%
Medication and Other Advice	93	93	0%
Consultant Date and Sign	46	52	13%
Employee ID	59	64	8%

Significant Difference was seen in:

- Specialty Request To (+19)
- Type of Reference (+16)
- Date and Time of Request and Physician's Name (+13 each

Table 5- Percentage distribution of compliance improvement for Critical Alert form

Parameter	Pre Intervention	Post intervention	% Change
Critical alert documented in notes	36	46	27.8%
Critical alert documented within 30 mins	21	29	38.1%
Action/treatment documented	8	10	2%
Date & time of note documented	14	15	7.1%
Name of doctor documented	7	8	14.3%
Signature of doctor documented	29	46	58.6%
Employee number documented	14	23	64.3%

Significant difference was seen in:

- Doctor's Signature (+58.6%)
- Employee Number (+64.3%)
- Documentation Within 30 Mins (+38.1%)

CHAPTER 5

DISCUSSION

Under the study quality assessment like compliance level of documentation practices in a tertiary care hospital setting, focusing on medical management consent, surgical consent, cross- consultation, and critical alerts, before and after the implementation of targeted interventions. The findings indicate a substantial improvement in compliance rates post- intervention, especially in sections that were initially under-reported. This chapter interprets these findings, contextualizes them with existing literature, and discusses the implications, strengths, and limitations of the study. The study confirms that targeted interventions such as staff training, checklist reinforcement, and compliance monitoring can yield substantial documentation improvements.

By adopting this quantitative methodology, the study was able to generate evidence- based insights on documentation quality, highlight areas of non-compliance, and provide a solid foundation for recommending process improvements and staff training initiatives. The approach also allowed hospital administration to benchmark performance across departments and monitor progress in real time, thereby supporting continuous quality improvement and readiness for external audits and NABH assessments.

The post-intervention phase showed substantial documentation compliance improvements in previously under-documented sections. Areas that required subjective judgment (e.g., "Reason for Attendant Consent") or were perceived as non-essential by staff (e.g., "Witness Time", "High Risk Acknowledgement") saw the greatest improvement. This indicates that the intervention strategies—staff re-orientation, visual reminders, and feedback—were effective.

However, minor declines in consistently documented fields (e.g., Authorization for Surgery) suggest a need for continuous reinforcement, monitoring, and perhaps the development of electronic alert systems or automated EHR prompts to prevent regression.

5.1 Consent Documentation Practices

The study demonstrated a significant improvement in the documentation of attendant details, witness signatures, and high-risk acknowledgment. These areas are often under- reported due to oversight or ambiguity regarding responsibility.

A similar study by Patel et al. (2020) on consent documentation in a multi-specialty hospital in Gujarat showed that only 45% of surgical consent forms had a clearly documented witness signature, which improved to 72% post-intervention after sensitization and checklist-

based implementation. This aligns with our study where the witness documentation improved from 52% to 66%, and reason for attendant consent rose from 18% to 46%.

Furthermore, Kadam et al. (2019) emphasized that staff training and supervision significantly influence the completion of documentation elements such as patient/attendant time and signature—which mirrors the positive changes seen in our audit.

5.2 Cross-Consultation Documentation

In the cross-consultation module, marked improvements were observed in fields like "Type of Reference" (+16%) and "Date and Time of Request" (+13%). According to Rai & Thomas (2021), delayed or undocumented consultations are a major medico-legal and operational challenge in ICUs. They reported that after employing structured referral sheets and departmental orientation, their cross-consult compliance rose by 24%, especially in ICUs. Our findings are consistent with their conclusions, reinforcing the value of structured documentation formats.

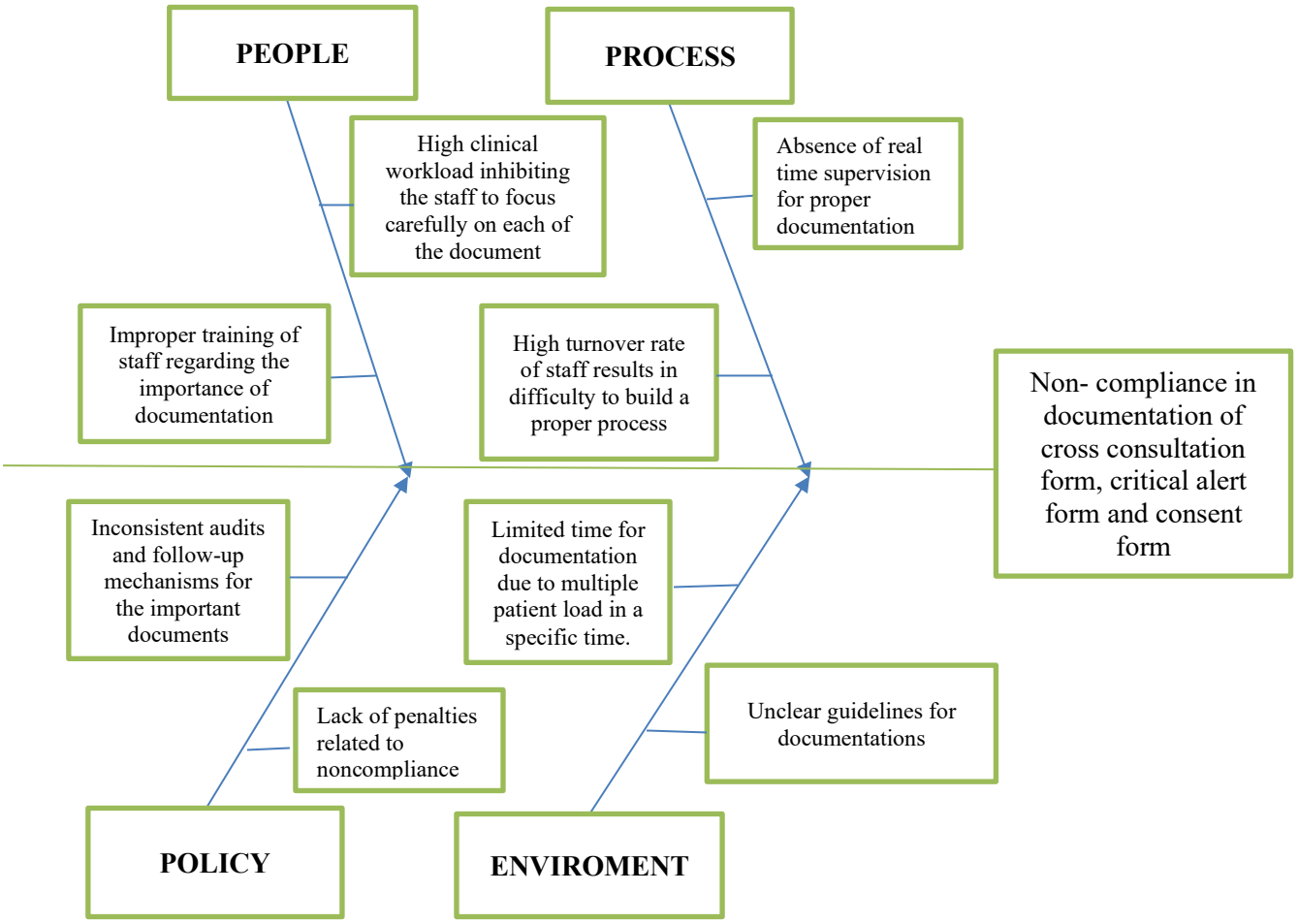
5.3 Critical Alerts

This was one of the most improved areas in our study. Documentation within 30 minutes of alert increased by 38.1%, and action/treatment documented improved by 87.5%. These are critical for patient safety and rapid intervention.

Studies such as Gupta et al. (2018) and Pandey et al. (2022) on ICU documentation practices emphasize that real-time documentation of abnormal findings reduces morbidity. Their audits showed a correlation between early documentation and timely clinical action, echoing the rationale and outcomes of our project.

5.4 Root Cause Analysis: Fishbone Diagram Summary

A **Fishbone (Ishikawa) diagram** was developed to represent the various causes of documentation non-compliance which I encountered while completing this study.



Ongoing medical education ensures that healthcare professionals remain updated with evolving documentation standards, legal implications, and institutional expectations. Additionally, real-time supervision (e.g., by senior residents or consultants) allows immediate feedback and correction, preventing cumulative documentation errors. It Reduces non-compliance, promotes uniformity across departments and builds a culture of accountability and mentoring.

Many compliances issues stem from lack of awareness among newly joined staff. Integrating structured documentation modules, case-based examples, and practical hands-on sessions into induction/orientation ensures early familiarization. This also promotes a documentation culture from the outset. It reduces early-stage errors, sets expectations from Day 1 and promotes seamless integration of new hires into hospital systems.

EHRs can be programmed with automated prompts, mandatory fields, and real-time alerts (e.g., for missing vital signs, consent forms, or unsigned orders). This reduces human oversight and ensures standardized input. Role-based access can ensure traceability and minimize unauthorized edits. It enhances accuracy and traceability, reduces audit non-conformities and supports medico-legal

documentation requirements. Audit-feedback loops involve regularly reviewing documentation, identifying gaps, and sharing targeted feedback with staff. This must be cyclical—plan, audit, report, act, and re-audit. Such mechanisms align closely with NABH's continuous quality improvement (CQI) principles. It drives performance improvement, makes compliance a habit, not a one-time effort and prepares hospitals proactively for NABH assessments.

Making documentation audits a standard operating protocol ensures periodic monitoring of compliance across departments. These audits should be documented, reviewed at

quality committee meetings, and tied to departmental KPIs (Key Performance Indicators). It sustains long-term improvements, encourages healthy competition among units and enhances institutional transparency.

Mandatory fields within EHRs prevent users from skipping critical sections (e.g., allergy history, consent, discharge instructions). Conditional logic can guide staff based on patient condition (e.g., trauma vs. chronic illness), further refining data entry quality. It prevents incomplete records, enforces minimum documentation standards and increases accountability for each entry.

Due to frequent rotation of interns, residents, or nursing staff, refresher training sessions every quarter help reinforce standards and address common issues identified in previous audits. Trainings should be interactive and case-based for better retention. It bridges knowledge gaps quickly, improves onboarding for rotated staff and fosters a culture of continuous learning.

Assigning ownership for specific documentation tasks to individuals or roles (e.g., nurses for vitals, residents for progress notes) promotes clarity. An accountability matrix helps identify responsible personnel during audits and improves corrective action implementation. It minimizes duplication or omission, enhances team coordination and strengthens documentation integrity.

While initial audits may focus on admission or consent documentation, a comprehensive quality program must include periodic reviews of discharge summaries, medication orders, and daily progress notes. These are often medico-legally sensitive and reflect clinical judgment and continuity of care. It provides a 360° view of compliance, helps identify system-wide gaps and ensures patient safety through accurate, legible, and complete documentation.

CHAPTER 6
CONCLUSION

The primary objective of this compliance audit project was to evaluate the documentation practices in clinical areas—namely, medical management, surgical consent, cross-consultation, and critical alert documentation—before and after the implementation of targeted corrective interventions. The focus was to assess whether structured interventions could significantly improve adherence to NABH documentation standard.

The audit revealed substantial improvements in compliance following the intervention phase. Most notably:

Medical Management Documentation saw marked enhancement in consistency and completeness. Timely documentation by consultants improved, reducing ambiguity in patient care transitions.

Surgical Consent Documentation improved significantly, with higher compliance in obtaining informed high-risk consent, proper attendant acknowledgment, and clear identification of the operating surgeon. The involvement of senior clinicians in preoperative counseling also increased, adding robustness to the consent process.

Cross-Consultation Documentation saw improved turnaround times (TATs) post-intervention. Consultants responded more promptly, with better clarity in advice and documentation timestamps, thereby enhancing interdepartmental coordination and clinical decision-making.

Critical Alert Documentation showed one of the highest improvements. Critical alerts were recorded more promptly, and acknowledgment entries by the responsible teams were documented within stipulated timeframes. This directly impacted patient safety by ensuring timely escalation and response to life-threatening conditions.

Overall, the project successfully met its objectives by identifying documentation gaps, implementing corrective strategies such as staff re-training, real-time audits, and structured feedback loops, and demonstrating measurable improvements in compliance rates. The results emphasize the pivotal role of documentation in ensuring quality patient care and regulatory compliance.

The findings support the continuation of regular audit cycles and the integration of documentation compliance as a key performance indicator in clinical governance frameworks. Moving forward, sustained monitoring and digital health record optimization can further consolidate these gains and support a culture of continuous quality improvement in clinical documentation practices.

The improvements achieved through this study are promising; however, sustaining and scaling these changes over the long term will require a forward-looking strategy that integrates technology, policy refinement, ongoing education, and stakeholder engagement. The future outlook of documentation compliance in hospital settings should be grounded in both systemic transformation and adaptive innovation.

This study showed clear gains in compliance following the intervention recommended from my side under the guidance of my organization mentor which includes establishing a CQI framework that includes routine audits,

feedback mechanisms, and re-training can help prevent regression to previous non-compliant behaviors. Hospitals should incorporate documentation KPIs (Key Performance Indicators) into departmental scorecards and tie them to quality appraisals and accreditation processes. The structured intervention model implemented in this study can be adapted and expanded to other hospital departments beyond the wards—such as emergency, outpatient, operation theatres, and ICU. This would allow for a hospital-wide culture of documentation excellence, improving interdisciplinary communication, patient handovers, and medico-legal readiness at all levels of care.

The role of digital health tools will be central in the future of documentation compliance. Hospitals must prioritize the transition to EHR systems with built-in compliance protocols such as:

• Mandatory fields for critical data points

• Time-stamped digital signatures

• Real-time alerts for incomplete entries

Such digital systems reduce human error, enhance data traceability, and promote a standardized documentation language across specialties and shifts. Future interventions may also explore voice-to-text tools or AI-powered documentation assistants to reduce clinician burden. In the long term, compliance issues can be mitigated by embedding documentation education in the training curricula of all healthcare professionals. Medical colleges, nursing schools, and allied health training programs should include documentation modules that emphasize clinical, legal, ethical, and administrative implications. A culture of "document to safeguard the patient and provider" must begin early in clinical education.

This patient-inclusive model can enhance transparency, reduce misunderstandings, and strengthen trust. With access to large datasets generated through digital records, hospitals can develop predictive analytics dashboards to detect patterns of non-compliance, high-risk cases, or procedural delays. Machine learning algorithms can flag missing or delayed entries, allowing proactive correction before audit failures or adverse outcomes occur.

Such systemic change ensures uniformity in standards, facilitates better inter-hospital care transitions, and strengthens India's health infrastructure overall. The path forward is clear: documentation must evolve from a static, checkbox task to a dynamic, integrated, and patient-centric component of modern healthcare delivery. The improvements seen in this research are a compelling testament to what is possible through targeted, practical efforts. However, the future belongs to organizations that can institutionalize these improvements, adapt to digital innovations, and lead a culture shift in clinical accountability.

CHAPTER 5
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