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Role of Hospital Administrator on Data Quality and Compliance in Medical Records

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1. INTRODUCTION

1.1 BACKGROUND

Well managed Medical-records at hospitals improve efficiency, safety and quality of patient care. This study aimed to explore the management of medical records and to describe the present practices, infrastructure and challenges regarding medical record keeping, archiving and retrieving at Max Super Speciality Hospital Dehradun. Administrators of hospitals have an important role in protecting the validity and compliance of medical records. In the age of healthcare systems that rely on data driven and interconnected environments, the quality and integrity of medical records are imperative. They are one of the frameworks of care, supporting informed clinical selections, supporting healthcare provision and time efficiency, and creating accountability and ultimately safety in healthcare provision.

Data integrity includes accuracy, completeness, reliability, and timeliness. Data compliance is focused on regulatory standards, compliance with regulation, and ethical practices. Administrators are custodians of these values by being the bridge between the clinical staff, technology, and regulatory frameworks.

Administrator duties include the execution of a data governance policy, accountability for record keeping systems, education and training for healthcare practitioners, and auditing processes to identify the variances in records creating an incident report. Leaders also have the responsibility of ensuring that compliant practices are followed within regulations pertaining to HIPAA in the U.S. as well as other similar laws globally that exemplify protecting patient privacy and information security.

With the help of electronic health record (EHR) as well as advancements in technologies with hospital systems, administrators are held to a higher level of responsibility to support compliance and address ongoing concerns influencing the organization of healthcare with to changes happening in the landscape of connectivity and interface with electronic systems. Based on leading groups, administrators must continuously focus developing accountable, accurate, and ethical practices as a culture in healthcare organizations.

Keywords: Medical Records, Medical Records Management, Record Archiving, Data safety, Electronic Health Records, Record Keeping, Record Retrieving.

1.2 PROBLEM STATEMENT:

Today, the world of health care is no longer impervious to change. They are no longer strictly paper health records nor electronic medical records systems (EMR) that allow data to be stored and accessed in ways that were previously impossible with unstructured data storage. While electronic medical records systems have changed the practice of record management in health care records, they have also produced challenges (repeated bureaucratic mistakes) for health care administrators about the accuracy, completeness, and compliance of medical records. Hospital administrators remain fixated on compliance with a myriad of regulations, many of which are very strict, some even stricter with regards to the ethical standards of their colleagues, relating to issues concerning patient voluntary confidentiality and a context of a legal standard of compliance with data and information of statutory policies and legislation in all health services.

While technology has improved access to medical records, data entry errors, non-standard practices of documentation, lack of competence and training, and the complexity of regulatory compliance and oversight remain significant problems which impact on the reliability and usefulness of medical records.

Similarly, the rapid expansion of possibilities including patient access to data and the use of artificial technology will lead to more complex issues for the hospital administrators to manage in their work.

This research intends to understand some of the challenges faced by hospital administrators in their efforts to maintain the quality of data in medical records and the associated compliance requirements. As a part of the research process, I will be looking for gaps, solutions, and exploring implications of leadership, policy, implementation, and technology for hospital administrators in the resolution of these challenges."

1.3 RESEARCH QUESTIONS:

This research is designed to investigate the primary responsibilities of hospital administrators to ensure the accuracy, completeness, and compliance of medical records. The research is also designed to identify common challenges that hospital administrators face to keep data accurate and comply with state and federal regulations while understanding the role of electronic health records (EHRs) and how they may impact the responsibilities of hospital administrators. The research will also examine the strategies of hospital administrators that manage data inaccuracies, discrepancies, cybersecurity risks while ensuring patient confidentiality. The research will explore the effectiveness of the training in medical record keeping and how hospital administrators are collaborating with clinical teams to maintain translational accuracy. The research will also explore the organizational policies and frameworks for data governance and auditing and monitoring medical records for quality and compliance. The research will leverage technology to explore how administrators balance data management with access, how to assess the quality and compliance of practices through metrics, and how administrators keep up with changes and updates to state and federal healthcare regulations and standards.

1.4 IMPORTANCE OF STUDY:

The issue of "The Role of hospital Administrators in Providing quality and compliant data in Medical Records" is important for our field for many reasons.

Improving Patient Outcomes: Quality records that are compliant with regulations are critical for the quality of care and decision-making of all levels. The hospital administrator's ability to ensure data quality will contribute to better diagnostic and treatment plans for patients, which lead to better patient follow-up and outcomes overall.

Following Complex Regulatory Processes: The regulatory environment for healthcare seems to be getting more confusing and complicated, particularly with regard to patient privacy and maintaining the integrity and security of patient data. This study will shed light on the management practices hospital administrators used and may be useful for risk managers in understanding how administrators monitor or identify regulatory practices that minimize risks associated with legal consequences and liabilities.

Efficiency: High-quality records, that are compliant with regulations, minimize the possibility of delays and redundancy when hospital staff, patients and family members must work together to coordinate each patient's hospital journey. Good records improve operational efficiency in the hospital (e.g., record-sharing real-time paperwork reconstruction, distribution, and moving patients).

Cybersecurity: We recognize the increasing cybersecurity threats to health care organizations due to the adoption of electronic health records. As patients' confidentiality is ever more violated, the basic checks and balances, such as the administrator's attention on health records, need to be re-examined for the effect on patient safety/neglect and improved patient outcomes.

Informing Policy and Training: Hospital administrators are responsible for implementing policies and conducting training for staff. This research could provide recommendations for best practices that will nourish a climate of correctness and home accountability in healthcare organizations.

Motivating Technologies: As healthcare continues to evolve toward to use of data, administrators have to harness technology (to ensure quality and compliance) in order to be effective in their job roles. For instance, this study will help to examine the use of technology and/or AI and data analytics to improve the performance of hospital administrators.

Adverse Effect on Public Health: The study's findings don't just impact individual's hospitals, it can potentially impact public health practices by making data more reliable for research, planning, and policy making across healthcare systems.

In investigating the above aspects, this study emphasizes the value of hospital administrator roles in connecting clinical, technology and regulatory areas to create a responsible and effective healthcare system.

2. REVIEW OF LITERATURE

2.1 OVERVIEW:

The literature review looks at a variety of roles that hospital administrators have in the area of managing data quality and compliance in medical records. It examines the increased prevalence of electronic health records (EHRs), which have provided hospitals and health systems with global opportunities and challenges, and have forever changed healthcare systems everywhere. Studies conclude that while EHRs provide better accessibility and efficiency among all users of the record, they also need a great deal of oversight to ensure the data's accuracy, completeness, and timeliness. These emerging realities

around utilizing EHRs, and the expanded scope it creates for hospital administrators, mean that they are responsible for overseeing the hospital's data governance policies.

The literature examines the regulatory and legal frameworks that impact medical records, including HIPAA in the U.S., GDPR in Europe, and India's IT Act; each frame can only enhance compliance mandates around protecting patient data. On this, in several scholarly articles, administrators have painfully noted recent changes in compliance when it is mismanaged; therefore, staying up to date administratively with the evolving regulations is essential for mitigating the growing risk of violations and penalties.

Additionally, literature emphasizes common challenges hospital administrators experience -- including data entry problems, document inconsistencies, cybersecurity risks, and interoperability issues using systems not designed for healthcare. Literature also reviews training deficiencies that perpetuate poor data and the need for hospital administrators to educate healthcare staff continually to address data quality. Another notable theme is the hospital administrator's responsibility for building collaborative relationships between the clinical and non-clinical teams to achieve and keep accurate and standardized medical documents.

Several emerging technologies --including artificial intelligence, machine learning, and advanced analytics are also reviewed as tools administrators can take advantage of, to ensure compliance and data quality. Best practices in auditing, monitoring, and implementing effective governance has been documented as well.

In conclusion, literature demonstrates the varied responsibilities of hospital administrators, as enablers of a reliable and compliant healthcare data ecosystem, and it shows they might sit in a great position to mediate the gaps between policy, technology, and clinical practice. If you'd like, I can expand into specific studies or themes.

Influence of EHRs: Moving to EHRs has transformed healthcare data management, allowing for more efficient management yet requiring rigorous oversight to maintain the quality of the data and compliance.

Regulatory and Legal: Hospital administrators are compelled to understand and navigate many overlapping regulatory frameworks including HIPAA (Health Insurance Portability and Accountability Act), and GDPR (General Data Protection Regulation), as well as various other non-U.S. and internationally acceptable regulations, all for the purpose of stopping the loss of privacy of patient data and reducing liability issued by any infringement/non-compliance.

Complicated Management of Data: Persistent problems, from data entry errors, to various formats of inconsistent data entries, to issues with interoperability increase the need for controlled and deliberate approaches and actionable strategies.

Importance of Education and Collaboration: Ensuring ongoing staff education and better collaboration between clinical and non-clinical workers remain crucial for establishing the accuracy and standardization of medical records.

Improved Technology: Technology, as in artificial intelligence (AI), machine learning and analytics present exciting new avenues for developing better data governance and compliance, which can spur improvements in the quality of medical records.

2.2 STRATEGIES REVIEW:

Strategies to Ensure Data Quality and Compliance in Medical Records

Developing Solid Data Governance Frameworks: Hospital administrators can implement data governance frameworks and clear policies and procedures, which should outline roles and responsibilities, standards around data entry and management, while ensuring that all data governance frameworks meet operational, legal and regulatory requirements. Good governance framework gives clear accountability and minimizes inconsistency in medical records management.

When Moving Towards Improved Data Management, Think Technically: There are tools available, such as, electronic health records (EHR), artificial intelligence (AI), and data analytic solutions to facilitate data management. These could help with error identification, clinical documentation accuracy, and even interoperability between systems. Additionally, administrators can invest in cybersecurity to mitigate issues surrounding data confidentiality, integrity and availability regarding sensitive patient data.

Implement Regular Training and Education Programs: Training healthcare staff on adequate data entry, clinical documentation and data disposition and retention practices, and compliance is paramount. Education on constant and evolving regulations ensures all staff understand the importance of compliance as it relates to data quality and security regarding patient information.

Auditing and Monitoring Processes: Consistent audits of medical records is an effective process to identify the many errors, omissions, and areas of non-compliance. Hospital Administrators can use performance metrics to help capture any data quality and compliance issues over time and develop strategies to mitigate them so they are attended to quickly and corrected.

Developing a Culture of Collaboration: A culture of collaboration that unites clinical teams and administrative teams is essential. Open lines of communication will support teams to work together to expect proper consistency in documentation and the best practices in keeping documentation appropriate.

Way to Use: Administering open access to medical records by authorized personnel will take considerable skill and an understanding of what the company would require. This means administrators will have to supervise and integrate policies and processes that ensure medical records can be accessed and at the same time maintain access to medical records security in a serious and robust way. Role-based access is one solution and involves using different levels of encryption based on end user requirements.

Keeping Up with Change: The health care regulatory environment changes not just weekly but at times hourly. Administrators need to remain wellinformed with changes in regulations to adjust hospital policies and practices based on the effective information. Subscribing to popular industry publications and attending various workshops or conferences will also help to keep up to date.

Standardizing Data Collection Processes: To reduce variation and optimize consistency in medical records, using standardized templates and standardized data collection protocols is essential. When using standardized procedures, documentation will minimize documentation practices that result in errors due to transitions in documentation processes.

Using Feedback Mechanisms: Using feedback mechanisms when obtaining clinical staff and patient feedback becomes invaluable in identifying areas to improve upon in medical records management. This feedback subsequently will be allowed to inform administrators about revisions to reinforce or amend.

Emphasizing Ethical Practices: Administrators need to model and establish ethical responsibility. Protecting patient confidentiality and committing to compliance with legislation will also allow organizations to operate in an environment where trust is assured in healthcare.

3. RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN:

This is a mixed-methods study that combines quantitative analysis to detect statistical trends and qualitative insights to explore underlying factors contributing to documentation errors. The primary objective is to identify and evaluate patterns in the discrepancies of medical records across departments, assess the root causes, and recommend strategies for hospital administrators to enhance data quality and compliance. This study aimed to explore the management of medical records and to describe the present practices, infrastructure and challenges regarding medical record keeping, archiving and retrieving at Max Super Speciality Hospital Dehradun. The dataset includes **106** records of discrepancies across multiple departments. Each record serves as a unit of analysis. No additional sampling is required as the data is comprehensive for the given time period.

3.2 STUDY AREA AND STUDY POPULATION

MAX SUPER SPECIALITY HOSPITAL, DEHRADUN, UTTARAKHAND, this multi-speciality hospital provides various health services including the medical record department.

STUDY POPULATION

The dataset includes 106 records of discrepancies across multiple departments. Each record serves as a unit of analysis.

3.3 STUDY PERIOD

45 DAYS (01/07/2024 - 15/08/2024)

3.4 STUDY CRITERIA:

Reviewing the data provided reveals striking inconsistencies in medical record documentation in multiple departments for the month of July 2024, ranging from missing signatures, designations, dates, times, and patient initials (all necessary for compliance needs and data quality in healthcare). The departments increasingly common in these areas of documentation lapses are Orthopaedics, Urology, Cardiology, and General Surgery. The key documents impacted are patient consent forms, recovery room charts, and procedural checklists, all lacked ultimately required signatures or designations (e.g., residents entered a document without state their supervisor; or recovery room charts did not have an anaesthesiologist's signature). This suggests a systemic deficiency in compliance in medical record documentation.

One repeated observation was a missing anaesthetist's and surgeon's signatures on key forms (e.g, recovery room chart, consent for angiography or anaesthesia, surgical safety checklist) prior to conclusion of their service on the patient's case. Patient initials were frequently absent, typically in generic informed consent forms. In some instances, departments (e.g, Cardiovascular Surgery, Internal Medicine etc.) did not record date and time.

Frequent missing nurse and staff signatures on documents suggest non-adherence to processes. In many cases, guardian or next-of-kin signatures were missing, specifically for documents like face sheets, indicating a lack of follow-through when obtaining important patient information.

The data supports that documentation errors are not isolated incidents, but rather they occur across multiple departments and job roles. The results of the study necessitate hospital administrators to address systemic issues. Something that could such as provide more education to all healthcare providers on

data management, stricter adherence to the data governance policies, and appropriate usage of technology to implement reminders and ensure compliance, would significantly improve the quality and reliability of medical documentation.

Overall, this analysis confirmed the importance of thorough documentation for protecting the integrity of healthcare services and reducing legal or ethical risks.

3.4 ETHICAL CONCIDERATION

Confidentiality: The confidentiality of all patients and healthcare staff information within the dataset should be strictly maintained Confidential identifiers such as patient name, IP numbers and ward information should be de-identified while providing analysis, reporting and sharing of findings so that their confidentiality and privacy is protected.

Data security: The dataset should be stored securely and only made available to staff who are authorized to undertake analysis or authorized in any other way or are involved in the analysis of the data. In this way it will limit exposures to unwanted access and breach of sensitive information.

Privacy matters: Patients information such as the diagnosis and treatment history, should not be disseminated in any way, where confidentiality and privacy may be compromised. Those of staff must also be treated with respect.

Informed consent: If healthcare staff or administrators are to be approached to gain further qualitative data or insight to add to the analysis informed, consent should be gained from the healthcare staff, or administrator in the process. This keeps with ethics and also ensures voluntary participation.

Meaningful use: The data must only be used for the agreed purpose only, which is to improve documentation practice, maintain compliance, and improve medical record quality. The data must not be used for secondary use or for something that the data was not originally collected.

Non-Discrimination: Findings should emphasize the systemic nature of the issues encountered, rather than blaming individuals and departments. The intent of the analysis should be constructive and aim to improve existing processes—not criticize.

Anonymized Reporting: When discussing findings, care must be taken to ensure that, no specific patient, health professional, or department is identifiable (and/or identifiable information not inadvertently disclosed). It should be focused on trends and patterns in systemic processes rather than on specific examples of cases.

Accountability and Transparency: Researchers or analysts must make an adequate effort to be accurate, transparent and accountable in the methods used and disclosures made in reporting the process and results, including avoiding misleading and selective disclosures of findings.

Ethical Duty to Take Action: Information generated from the analysis must be or to be used to affect real change in medical documentation practice. Ethics and responsibility require not just generating new knowledge from research but having a duty to change working practice for the better.

DATA ANALYSIS AND INTERPRETATION:

In evaluating inconsistencies with medical records from July 2024, my review identified that there were considerable gaps in documentation for several different roles and different departments within the facility. Missing signatures, signatures missing designations, missing dates, missing times, and missing patient-related information were notable information in consent documents, recovery room charts, procedure checklists, and face-sheet documentation. Many departments were represented within the records reviewed including Orthopaedics, Urology, Cardiology, General Surgery, and Internal Medicine having the most frequent accounts of missing information—all routinely making the same errors with staff and administrators not fulfilling their responsibilities to produce comprehensive medical records including signatures and designations on consent forms for high-risk procedures and anaesthesia.

Missing patient initials on the informed consent forms and consent for treatment forms and other documents (i.e. the procedural documentation) did not properly document and provide robustness with the documentation which ultimately impacts the complete completeness of my medical records. There were even numerous missing signatures by anesthetists on the recovery room charts and preoperative evaluation (POE) form in the above departments in which surgery cases are scheduled.

The quantity and scope of documentation errors signal a clear need for active means of intervention by hospital administration. Means for intervention include the use of standard templates, improved staff education, regular auditing, and the introduction of an electronic health record (EHR) system. Overall, the findings confirm the importance of accurate documentation in not only complying with health quality assurance, patient care and risk management, but as a best practice in the delivery of health services.

Table:1 This categorization highlig	ghts both the key issues and their	frequency, offering insights into systemic gaps.
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Type of Discrepancy	Affected Document	Responsible Role	Departments Involved	Frequency
Missing signatures	Recovery Room Charts,	Doctors,	Orthopaedics, General	25
(Doctor, Anaesthetist)	Procedure Checklists	Anaesthetists	Surgery, Urology	

Missing patient initials	Consent Forms, Generic Informed Consent Forms	Patients	Cardiology, Gastroenterology, Neurology	20
Missing designation,	date, and time Admission Request Forms, Procedure Safety Checklists	Doctors	Cardiology, Urology, Neurology	30
Missing guardian/next-of-kin signatures	Face-sheets	Guardian/Next- of-Kin Medical	Oncology, General Surgery	8
Missing nurse/staff signatures	Recovery Room Charts, Blood Transfusion Forms	Nurses/Staff	General Surgery, Urology, Pulmonology	10





5. FINDING, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY OF FINDING:

The information presents a specific overview of inconsistencies in medical records throughout July 2024. The information has established that there are considerable gaps in documentation, which involves serious occasions across multiple departments and health provider roles, demonstrating deep-rooted problems in medical records recording. Occurrences of concern include, but are not limited to:

Missing Signatures: Missing signatures from doctors, anaesthetists and nurses, frequently on critical forms (for example recovery room chart, angiography check, surgical safety, face-sheet). Anaesthetist errors, frequently missing names and/or signatures on paperwork pertaining to guidance and judgement in procedural and evaluative forms.

Incomplete Documentation: Frequently missing designations, dates, and times - admission request forms, informed consent, procedure checklist. Initials for effort 'sub-leading', such as consent forms for anaesthesia, blood transfusion, any procedures.

Gaps by Role: There are nurse and staff signatures missing in recovery room charts and transfusion records, which indicates shortcomings in either training or procedure. Guardian or next of kin signatures are absent from critical forms (face-sheets) in departments like medical oncology, and internal medicine.

Gaps by Department: Of the departments including Cardiology and Urology with the highest gap frequency, disparities occur regarding incomplete written consent and procedural documentation. Some specialties also show significant lapses in compliance documentation (e.g., Neurology and Pulmonology).

Systematic Problems: The problems we found indicate systematic gaps in training, compliance, and administrative oversight of clinical documentation. The higher chance of error in paper documentation likely has an impact on these discrepancies.

In conclusion, this report demonstrates the need for interventions such as an in-depth training program for staff, standardized templates and processes, regular audits, and utilizing electronic health record (EHR) systems to support compliance and the quality of data collected in health care documentation.

5.2 DISCUSSION OF THE MAJOR FINDING:

Discussion of Major Findings The analysis reveals important deficits in medical record documentation in several departments within the healthcare facility, highlighting system-level issues, as well as role-specific issues. The most common issue is missing signatures from doctors, anaesthetists, or nurses on documents such as recovery room charts, consent forms, and surgical safety checklists. Overall, these omissions severely impact the legal standing of a medical record, but even worse is the implication to patient safety, and regulatory compliance.

Another common issue related to signatures is incomplete documentation, such as missing delegated initials, dates, and/or times, mainly from admission request forms, angioplasty checklists, and informed consent forms. In cardiology and general surgery departments, missing documentation was even more common, indicating perhaps a general challenge with standardized processes.

Finally, patient-specific documentation errors were also commonplace, such as records missing initials on informed consent forms and procedure documentation. These gaps suggest a lack of patient engagement and administrative oversight. Missing patient-specific documentation was present in departments like gastroenterology, orthopaedics, and urology, and likely indicates room for improvement for administrative and clinical team collaboration.

The data set also identified difficulties with guardian or next of kin signatures on face-sheet in high- risk departments such as medical oncology and internal medicine. The absence of guardian or next of kin documentation could have ethical and legal implications, especially when dealing with high-risk surgeries or life-saving interventions.

The findings reveal a systemic deficiency in training and awareness whereby aspects of errors are consistent across not only the same role but also multiple departments and roles across the facility. The errors and inconsistencies indicate, on the one-hand, that staff members lack knowledge and comprehension regarding documentation, but on the other, staff members might feel assenting documentation processes add to their workload (especially at the end of their shift), or clinical guidelines are unclear.

It was important that we examined gaps between identified roles. Again, we saw educational gaps particularly for anaesthetists as numbers of forms (preoperative evaluation and recovery) for which they failed to sign and document were considerable. Hence, targeted interventions are needed to improve compliance for specific groups.

Lastly, while the data set captures issues broadly across the types of documentation, the high volume of missing data on procedural checklists, blood transfusion consents and surgical safety documents, suggests that systems, such as electronic health records (EHRs) to as far as possible avoid manual errors, may need to be put in place.

5.3 CONCLUSION:

The study of inconsistencies in medical records from July 2024 evidences substantial gaps in documentation practices across departments and roles within the healthcare organization. These inconsistencies, including missing signatures and/or designations, date/ time, missing patient and guardian information represent substantial challenges for compliance, patient safety and ethical practices in healthcare. The study outlines the preponderance of error across clinical and administrative staff within the organization and systemic issues related to lack of standardization, insufficient training and/or lack of adherence to processes.

The departments of Orthopaedics, Cardiologist, Urology and General Surgery present with the greatest number of documentation infractions. The documentation gaps are mainly found in critical documents such as the consent forms, procedural checklists, and recovery room charts. Role-specific gaps were noted in the study where gaps occurred consistently for anesthetists, doctors, nurses, and administrative staff, and demonstrate the need for role-specific corrective actions in response to findings.

The research demonstrates the necessity for hospital administrators to lead the way in establishing viable solutions to improve documentation practices. Examples of viable solutions include implementing standardized templates, developing audits of documentation practices, and/or implementing staff education, as well as implementing technology solutions, such as electronic health record (EHR) systems, to alleviate some of these challenges. When organizations develop a culture of professionalism, including accountability to performance expectations and standards of practice, they reduce the chance for poor data quality, compliance issues, and impact to patient outcomes.

In conclusion, this research underscores the critical importance of diligent medical documentation and the ability to be able to offer safe, efficient and ethical healthcare services. More importantly, the research shows the need for urgent transformation to address systemic and procedural shortfalls to ensure that healthcare facilities, over time, achieve the high standards and expectations of modern medical practice.

5.4 IMPLICATION OF THE STUDY

There are various implications from this inquiry. First, it demonstrates an urgent need for the implementation of standardized documentation practices to make sure departments use data consistently. Second, it makes evident the need for constant training of staff as well as assessments that help ensure consistency with implemented protocols. Finally, adopting technology (like EHRs with compliance checks) will help in addressing many of the challenges identified.

This discussion reflects a broader need for improvements to the healthcare documentation system to improve patient safety, ensure regulatory compliance, and increase efficiency across the system.

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