

Factors Inhibiting Medical Record Management in an Effort to Improve Service Quality at the Dr. Hasri Ainun Habibie Regional Hospital, Gorontalo Province

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ABSTRACT

Medical record management is an important component of hospital service quality because it supports the availability, accuracy, completeness, and timeliness of patient information. This study aimed to identify factors inhibiting medical record management in efforts to improve service quality at Dr. Hasri Ainun Habibie Regional General Hospital, Gorontalo Province. The study used a descriptive qualitative design. Five informants participated, consisting of one key informant, three main informants, and one additional informant. Data were collected through in-depth interviews, observation, and documentation and were analyzed through data reduction, data presentation, and conclusion drawing. The findings indicate that the Man aspect generally supports medical record management. The medical record unit has 26 personnel, although only five have an educational background in Medical Records and Health Information (RMIK), while most others are graduates of Public Health. The Machine aspect is supported by computers, printers, scanners, internet access, and the SIMGOS-based electronic medical record system, but internet instability, server capacity, and occasional SIMGOS disruptions remain obstacles. The Method aspect operates relatively well because the hospital has policies and standard operating procedures (SOPs) and applies electronic medical records consistently. Overall, medical record management has been implemented adequately, but strengthening technological infrastructure and increasing personnel with RMIK backgrounds remain necessary to support service quality.

INTRODUCTION

Medical records are an essential component of hospital healthcare services because they contain important information regarding patients' health conditions, medical history, diagnoses, treatments, and healthcare interventions. The availability of accurate, complete, and timely medical record information is important for supporting clinical decision-making, ensuring continuity of care, facilitating administrative processes, and maintaining the quality and safety of healthcare services. Consequently, medical record management should not be viewed merely as an administrative activity but as an integral component of the healthcare service system. The quality of medical record management can influence the availability of information required by healthcare professionals and hospital management in providing and evaluating healthcare services.

The development of information and communication technology has encouraged substantial changes in the management of health information. One of the most important developments is the transition from conventional paper-based medical records to Electronic Medical Records (EMRs). Electronic medical records provide opportunities to improve the accessibility, processing, storage, and utilization of patient information. The World Health Organization emphasizes that digital health transformation requires the integration of organizational, human, financial, and technological resources to ensure that digital technologies can effectively contribute to stronger and more people-centred health systems (World Health Organization [WHO], 2021). The WHO's digital health strategy was subsequently extended to 2027, reflecting the continuing importance of digital transformation in strengthening health systems (WHO, 2025).

In Indonesia, the implementation of electronic medical records has become an important part of the digital transformation of healthcare services. Minister of Health Regulation of the Republic of Indonesia Number 24 of

2022 concerning Medical Records provides a regulatory basis for the implementation of medical records and emphasizes the transition toward electronic medical records in healthcare facilities. The regulation was established in response to the development of digital technology and the increasing need to organize medical records electronically while maintaining the security and confidentiality of health data and information (Ministry of Health of the Republic of Indonesia, 2022).

Despite the potential benefits of electronic medical records, their implementation does not automatically guarantee effective medical record management. The transition from paper-based to electronic systems involves changes in organizational processes, staff responsibilities, technological infrastructure, and work practices. Hospitals need to ensure that healthcare workers possess adequate competencies and digital skills, while the technological infrastructure must be sufficiently reliable to support continuous access to electronic information. WHO (2021) emphasizes that successful digital health transformation requires not only technology but also appropriate organizational and human resources.

Human resources represent an important factor in the implementation and management of medical records. Medical record personnel are responsible for managing patient information throughout various stages, including recording, processing, storing, retrieving, and maintaining the confidentiality of medical records. Personnel with an educational background in Medical Records and Health Information (RMIK) have specific knowledge and competencies related to medical record management and health information systems. Therefore, the availability of personnel with appropriate educational qualifications is important to ensure that medical record management is conducted effectively and in accordance with applicable standards. Inadequate numbers of qualified personnel, differences in educational backgrounds, and limited training may create difficulties in adapting to electronic medical record systems.

Recent evidence from Indonesian hospitals demonstrates that human resource capacity remains one of the important challenges in electronic medical record implementation. Hossain et al. (2025), in a qualitative study involving 12 hospitals on Java and Sulawesi, found that differences in staff digital skills and organizational readiness affected the implementation of electronic medical records. The study also identified low digital literacy among some healthcare workers and the need for greater staff training and capacity development. These findings indicate that the availability of an electronic system alone is insufficient when personnel do not have adequate competencies to use and manage the system effectively.

Technological infrastructure is another important factor in supporting medical record management. Electronic medical records require adequate computers, servers, network infrastructure, internet connectivity, and supporting devices to ensure that patient information can be entered, accessed, stored, and retrieved appropriately. System interruptions, unstable internet connections, inadequate server capacity, or other technical problems can interfere with the continuity of medical record management. Hossain et al. (2025) reported that hospitals in Sulawesi experienced challenges associated with inconsistent internet connectivity and network instability. Such conditions could result in the temporary use of manual recording and subsequently require data to be entered again into the electronic system, increasing the workload of healthcare personnel.

Similar challenges have also been identified in other studies of electronic medical record implementation in Indonesia. Kurniawan et al. (2025) reported that inadequate infrastructure, connectivity problems, insufficient training, limited resources, and unclear policies could hinder the successful implementation of electronic medical records in hospitals. The authors emphasized that effective implementation requires adequate preparation, technical support, structured training, and clear organizational policies. These findings demonstrate that technological readiness and organizational preparedness need to develop simultaneously rather than relying solely on the availability of electronic medical record applications.

The method used in managing medical records is also important because the implementation of electronic medical records requires clear policies, workflows, responsibilities, and standard operating procedures (SOPs). SOPs provide guidance for personnel in performing medical record activities consistently and help establish uniform practices in the recording, processing, storage, retrieval, and protection of patient information. The existence of clear procedures is particularly important during the transition to electronic systems because healthcare workers must adapt their existing workflows to new technological processes. Thus, effective medical record management requires the alignment of human resources, technological infrastructure, and organizational procedures.

The interaction between these components can be understood through the **Man, Machine, and Method** framework. The **Man** aspect refers to the availability, qualifications, knowledge, skills, and competencies of personnel involved in medical record management. The **Machine** aspect refers to the availability, adequacy, and reliability of technological infrastructure and electronic medical record systems. Meanwhile, the **Method** aspect refers to policies, standard operating procedures, workflows, and the consistency of their implementation. Examining these three aspects simultaneously can provide a comprehensive understanding of the factors that support or inhibit medical record management within a hospital.

The issue is particularly relevant in regional hospitals, where the availability of qualified human resources and technological infrastructure may differ from that of larger hospitals in major urban areas. A recent study at RSUD Toto Kabila Bone Bolango, Gorontalo, for example, identified limited network infrastructure, uneven staff training, dependence on information technology personnel, and suboptimal system utilization as challenges in implementing

electronic medical records for outpatient services. These findings demonstrate that hospitals in the Gorontalo region may face practical challenges in ensuring that electronic medical record systems operate effectively.

Dr. Hasri Ainun Habibie Regional General Hospital, Gorontalo Province, has implemented electronic medical records through the SIMGOS-based system as part of its efforts to improve patient information management and healthcare services. However, the implementation of medical record management may still encounter challenges related to human resources, technological infrastructure, and work procedures. The medical record unit consists of personnel with different educational backgrounds, while the implementation of an electronic medical record system requires personnel with appropriate competencies. In addition, the reliability of internet connectivity, server capacity, and the stability of the SIMGOS system are important factors that can influence the continuity of medical record management activities.

These conditions indicate the need for an assessment of medical record management that does not focus solely on whether an electronic system has been implemented, but also examines whether the available personnel, technology, and procedures are adequate to support its effective operation. Identifying these factors is important because obstacles in medical record management may affect the availability, accuracy, completeness, and timeliness of patient information, which in turn can influence the efficiency and quality of hospital services.

Therefore, this study aims to identify the factors inhibiting medical record management in efforts to improve service quality at Dr. Hasri Ainun Habibie Regional General Hospital, Gorontalo Province. The study focuses on the **Man, Machine, and Method** aspects to provide a comprehensive description of human resources, technological infrastructure, and procedures involved in medical record management. The findings are expected to provide evidence that can assist hospital management in identifying existing obstacles and developing appropriate strategies to strengthen medical record management and improve the quality of healthcare services.

METHODS

Research Design

This study employed a descriptive qualitative research design to identify factors inhibiting medical record management in efforts to improve the quality of healthcare services at Dr. Hasri Ainun Habibie Regional General Hospital, Gorontalo Province. A qualitative approach was selected because the study aimed to obtain an in-depth understanding of the conditions, experiences, and obstacles encountered by personnel in the implementation of medical record management. The study focused on three main aspects, namely Man, Machine, and Method, which were used as the analytical framework for identifying factors supporting and inhibiting medical record management.

Research Setting and Informants

The study was conducted at Dr. Hasri Ainun Habibie Regional General Hospital, Gorontalo Province. The research participants consisted of five informants who were selected purposively based on their involvement and knowledge of medical record management activities at the hospital. The informants comprised one key informant, three main informants, and one additional informant. The key informant was selected based on their role and understanding of the overall medical record management process, while the main informants were personnel directly involved in medical record management activities. The additional informant was included to provide supporting information and strengthen the findings obtained from the main informants.

The selection of informants was based on their relevance to the research topic, their involvement in medical record management, and their ability to provide information concerning human resources, technological facilities, procedures, and obstacles encountered during the implementation of medical record management.

Data Collection

Data were collected through in-depth interviews, observation, and documentation. In-depth interviews were conducted with the selected informants to explore their experiences and perceptions regarding the implementation of medical record management. The interviews focused on the availability and competence of human resources, educational backgrounds of medical record personnel, availability and reliability of technological infrastructure, use of the SIMGOS-based electronic medical record system, internet connectivity, server capacity, system disruptions, hospital policies, and the implementation of standard operating procedures (SOPs).

Observation was conducted to obtain direct information regarding the implementation of medical record management activities and the availability and use of supporting facilities. The observation focused particularly on the working environment of the medical record unit, the use of computers and other technological equipment, the implementation of electronic medical records, and the general workflow of medical record management.

Documentation was used as supporting evidence to complement the information obtained through interviews and observations. Relevant documents included hospital policies, standard operating procedures, records related to medical record management, and other documents relevant to the implementation of electronic medical records.

Research Instrument

The primary instrument in this qualitative study was the researcher, who was directly involved in collecting, interpreting, and analyzing the data. An interview guide was used as a supporting instrument to ensure that the interviews remained focused on the research objectives. The interview questions were developed based on the Man, Machine, and Method aspects.

The Man aspect included questions concerning the number of personnel, educational backgrounds, competencies, work responsibilities, and adequacy of human resources in the medical record unit. The Machine aspect included questions concerning computers, printers, scanners, internet connectivity, server capacity, and the implementation and reliability of the SIMGOS-based electronic medical record system. The Method aspect included questions concerning hospital policies, standard operating procedures, workflow, and the consistency of medical record management practices.

Data Analysis

The data were analyzed qualitatively through three main stages: data reduction, data presentation, and conclusion drawing. First, data reduction was conducted by selecting, organizing, and simplifying information obtained from interviews, observations, and documentation. Information that was relevant to the research objectives was identified and grouped according to the Man, Machine, and Method aspects.

Second, the reduced data were presented descriptively in the form of organized narratives and thematic descriptions. The presentation of data was intended to facilitate the identification of patterns, similarities, differences, and relationships among the findings obtained from different informants and data sources.

Third, conclusions were drawn by interpreting the patterns and findings identified during the analysis. The conclusions were continuously compared with the information obtained from interviews, observations, and documentation to ensure that the findings accurately represented the conditions of medical record management at the research site.

Data Validity

The credibility of the research findings was strengthened through source and technique triangulation. Source triangulation was conducted by comparing information obtained from the key informant, main informants, and additional informant. Technique triangulation was conducted by comparing information obtained through interviews with findings from observations and documentation. The use of multiple sources and data collection techniques was intended to reduce the possibility of relying on a single source of information and to strengthen the credibility of the research findings.

Ethical Considerations

The study considered ethical principles in the collection and management of research data. Informants were informed about the purpose and procedures of the study before data collection was conducted. Participation was voluntary, and the information provided by informants was treated confidentially and used only for research purposes. The identities of individual informants were not disclosed in the presentation of the research findings.

RESULTS**Human Resources (Man)**

The findings showed that the medical record unit at Dr. Hasri Ainun Habibie Regional General Hospital had 26 personnel involved in medical record management. In terms of educational background, however, only five personnel had an educational background in Medical Records and Health Information (RMIK), while most of the other personnel had graduated from Public Health programs. This indicates that the medical record unit had a relatively adequate number of personnel in terms of quantity, but the composition of personnel based on professional educational background was not yet optimal.

The availability of personnel was generally sufficient to support the implementation of medical record activities. Personnel were involved in various activities related to the management and processing of patient information. Nevertheless, the difference in educational backgrounds represents an important consideration in ensuring that medical record management is conducted according to the competencies required in the field of medical records and health information.

The findings further indicated that the presence of personnel from non-RMIK educational backgrounds did not completely prevent the implementation of medical record management. The medical record unit continued to perform its functions and support hospital services. However, the limited proportion of personnel with specific RMIK qualifications may become a challenge in maintaining and developing medical record management, particularly as the hospital increasingly relies on electronic medical records.

Technological Infrastructure (Machine)

The findings showed that the hospital had provided various technological facilities to support medical record management. These facilities included computers, printers, scanners, internet access, and the SIMGOS-based

electronic medical record system. The availability of these facilities demonstrates that the hospital has adopted information technology as part of its medical record management process.

The implementation of the SIMGOS-based electronic medical record system also indicates that medical record management has moved toward an electronic system. Electronic processing facilitates the recording, storage, and retrieval of patient information and reduces dependence on conventional paper-based documentation.

However, several technological problems were identified. The main obstacles included unstable internet connectivity, server capacity limitations, and occasional disruptions to the SIMGOS system. These conditions could interfere with the continuity of medical record management activities because personnel depend on the availability of the network and the electronic system when entering or accessing patient information.

When the internet connection or SIMGOS system experiences disruption, medical record activities may become slower and personnel may experience difficulties in accessing the required patient information. Thus, although the hospital already has the basic technological facilities needed to operate an electronic medical record system, the reliability and stability of the supporting infrastructure remain areas requiring improvement.

Policies and Standard Operating Procedures (Method)

The findings indicated that the hospital had established policies and standard operating procedures (SOPs) related to medical record management. The availability of these policies provides a formal basis for personnel in carrying out medical record activities. The hospital has also consistently implemented electronic medical records as part of its medical record management process.

The existence of SOPs helps establish a standardized workflow and provides personnel with guidance regarding their responsibilities in managing medical records. In this study, the Method aspect was therefore considered relatively adequate compared with some of the challenges identified in the Man and Machine aspects.

Nevertheless, the existence of SOPs alone cannot guarantee that medical record management will operate optimally. The effectiveness of the procedures remains closely related to the availability of competent personnel and reliable technological infrastructure. Therefore, the Method aspect needs to operate in conjunction with the Man and Machine aspects.

Overall Findings

Overall, the findings demonstrate that medical record management at Dr. Hasri Ainun Habibie Regional General Hospital has been implemented adequately. The hospital has personnel, technological facilities, an electronic medical record system, policies, and SOPs to support the process. However, several factors continue to require attention.

The most prominent issues identified were the limited number of personnel with RMIK educational backgrounds and technological constraints involving internet connectivity, server capacity, and SIMGOS system disruptions. These findings suggest that the main challenges are not the absence of a medical record management system but rather the need to strengthen the quality of human resources and the reliability of technological infrastructure.

DISCUSSION

Human Resources and Medical Record Management

The findings related to the Man aspect indicate that the hospital has a relatively adequate number of personnel, with 26 personnel assigned to the medical record unit. However, only five personnel have an RMIK educational background, while most personnel have backgrounds in Public Health. This finding is important because medical record management requires specific competencies that encompass the management of health information, medical record documentation, classification and coding, data management, information security, and the use of health information systems.

The adequacy of personnel quantity does not necessarily represent the adequacy of human resources in terms of competency. In medical record management, personnel need not only to be available but also to possess knowledge and skills that correspond to their responsibilities. The increasing use of electronic medical records further expands the competencies required because personnel need to understand both medical record management principles and digital information management.

This finding is consistent with Hossain et al. (2025), who found that many hospitals in Indonesia continue to face challenges related to staff competencies in electronic recordkeeping. Their study involving hospitals in Java and Sulawesi found that many hospital employees had limited digital information-related competencies and that hospitals needed to strengthen staff knowledge, skills, and expertise in managing electronic records. The authors emphasized that the successful implementation of electronic medical records depends not only on the availability of electronic systems but also on the capacity of employees to use and manage those systems effectively. PubMed Central (PMC)

The current finding also indicates that educational background should be considered in human resource planning. The presence of personnel from Public Health backgrounds can provide valuable knowledge related to population health and healthcare services, but medical record management has its own professional competencies. Therefore, strengthening the proportion of personnel with RMIK backgrounds may improve the specialization and professional

capacity of the medical record unit.

From a management perspective, the hospital therefore needs to consider not only the number of personnel but also the competency composition of the workforce. Recruitment of personnel with RMIK qualifications, continuing education, competency development, and specialized training in electronic medical records can be considered important strategies for strengthening the Man aspect.

The importance of human resource development is also supported by Adane et al. (2025), whose research on electronic medical record implementation found that inadequate training and limited management support could become important barriers to effective EMR adoption. This reinforces the argument that technological implementation needs to be accompanied by systematic human resource development rather than focusing exclusively on the provision of software and hardware. PubMed Central (PMC)

Thus, the findings of this study demonstrate that the Man aspect is functioning but not yet optimal. The personnel currently available are able to support medical record management, but strengthening professional qualifications and competencies remains necessary, particularly because the hospital has adopted an electronic medical record system.

Technological Infrastructure as a Major Constraint

The second important finding concerns the Machine aspect. The hospital already has computers, printers, scanners, internet access, and a SIMGOS-based electronic medical record system. The availability of these facilities indicates that the hospital has made substantial progress in supporting digital medical record management.

However, the study found that internet instability, server capacity, and occasional SIMGOS disruptions remain obstacles. This finding demonstrates that technological readiness should not be measured solely by whether hardware and software are available. More importantly, technology must be sufficiently reliable to support continuous healthcare activities.

The importance of infrastructure reliability is strongly supported by Hossain et al. (2025). Their study found that inconsistent internet connectivity and network instability were major challenges for hospitals in Indonesia, particularly hospitals in Sulawesi. When connectivity was interrupted, hospitals could be forced to rely temporarily on manual processes before entering information into the electronic system again. Such situations can increase staff workload and potentially delay medical record processing. PubMed Central (PMC)

The similarity between these findings and the current study is particularly relevant because both highlight the importance of connectivity in the implementation of electronic medical records in the Indonesian healthcare context. In an electronic system, the availability of computers and software is insufficient if the network infrastructure cannot provide stable access.

Server capacity is another important issue. An electronic medical record system handles a large amount of information and requires adequate processing and storage capacity. As the number of patients and electronic records increases, server requirements may also increase. Insufficient server capacity may result in slower system performance, interruptions, or difficulties in accessing information.

The findings therefore suggest that improving the Machine aspect should involve a comprehensive approach. The hospital needs to maintain the availability of hardware, ensure stable internet connectivity, evaluate server capacity periodically, and establish technical support mechanisms for SIMGOS disruptions. Maintenance and monitoring are particularly important because system interruptions can occur even when the system has already been implemented.

The findings are also consistent with the study by Zhang et al. (2022), which identified technological infrastructure, interoperability, and security as important technological considerations in the adoption of digital health information systems. Their research emphasized that technological barriers can significantly affect the adoption and continued use of digital health information systems when the supporting infrastructure is inadequate. PubMed

Therefore, the problem identified in this study should not be interpreted as a failure of electronic medical record implementation. Rather, it indicates that the hospital is in a stage where electronic medical records have been adopted but the supporting infrastructure still requires strengthening.

Method, Policies, and Standard Operating Procedures

The Method aspect showed a relatively positive condition. The hospital already has policies and SOPs related to medical record management and has implemented electronic medical records consistently. The existence of these formal procedures is important because medical record management involves a series of activities that require standardized processes.

SOPs provide personnel with clear guidance concerning how medical record activities should be performed. Standardization is particularly important in electronic medical records because errors in data entry, incomplete documentation, or inappropriate handling of information can affect the quality and reliability of patient information. The existence of policies and SOPs also demonstrates that the implementation of electronic medical records has been integrated into the hospital's organizational processes rather than being treated solely as a technological project. This is an important condition for sustainability because digital transformation requires changes in organizational practices and workflows.

However, the findings also indicate that the Method aspect cannot be separated from the Man and Machine aspects. Even when procedures are clearly established, personnel require sufficient competency to implement them correctly. Similarly, procedures cannot be implemented efficiently if the electronic system is frequently inaccessible because of internet or server problems.

Hossain et al. (2025) emphasized that electronic recordkeeping should be viewed as an organizational practice rather than simply a technical system. Their findings showed that successful EMR implementation depends on the interaction between organizational readiness, employee competencies, information governance, and technological infrastructure. PubMed Central (PMC)

This perspective is relevant to the present study. The existence of SOPs indicates that the hospital has established a procedural foundation for medical record management. Nevertheless, continuous evaluation is necessary to ensure that the procedures remain compatible with the electronic workflow and technological conditions of the hospital.

4. Relationship Between Man, Machine, and Method

The findings demonstrate that the three aspects are interconnected. The Man aspect concerns the people who operate and manage the medical record system, the Machine aspect provides the technological infrastructure required to perform the work, while the Method aspect provides the procedures and standards that guide the activities.

A weakness in one aspect can affect the other two. For example, personnel with adequate competencies may still experience difficulties if the internet connection is unstable. Conversely, a sophisticated electronic medical record system may not provide optimal benefits if personnel do not have adequate competencies to use it. Similarly, competent personnel and adequate technology may not produce consistent results without clear procedures and organizational policies.

The study by Hossain et al. (2025) supports this interconnected perspective. Their research found that technological infrastructure and staff competencies were among the central factors influencing electronic recordkeeping practices in Indonesian hospitals. The study also showed that hospitals with stronger institutional efforts to develop staff skills and technological infrastructure were better positioned to establish an effective electronic recordkeeping culture. PubMed Central (PMC)

This means that improvements at Dr. Hasri Ainun Habibie Regional General Hospital should ideally be implemented simultaneously. Increasing the number of RMIK-qualified personnel without improving network reliability may not fully resolve the problem. Likewise, upgrading servers without developing personnel competencies may not guarantee optimal utilization of the system. A coordinated approach is therefore required.

Implications for Healthcare Service Quality

The ultimate objective of medical record management is not merely to maintain documentation but to support the quality of healthcare services. Accurate and timely medical information enables healthcare professionals to access relevant patient information when making clinical decisions. Efficient information management can also support administrative processes and facilitate hospital management in evaluating healthcare services.

The obstacles identified in this study therefore have potential implications for service quality. Internet disruptions and SIMGOS interruptions may delay access to patient information, while limitations in specialized human resources may affect the consistency and quality of medical record management. Although the hospital has continued to implement electronic medical records, these challenges need to be addressed to ensure that the system provides its intended benefits.

The study by Zhang et al. (2022) similarly demonstrated that barriers involving infrastructure, human resources, and organizational support can influence the implementation of digital health information systems. PubMed In the context of the present study, strengthening these components can therefore contribute indirectly to improving the reliability and quality of hospital services.

Overall, the findings indicate that medical record management at Dr. Hasri Ainun Habibie Regional General Hospital is already functioning and supported by electronic systems, policies, and available personnel, but it has not yet reached an optimal condition. The primary areas requiring attention are the professional composition and competency of human resources and the reliability of technological infrastructure. The Method aspect is relatively adequate, but its effectiveness remains dependent on the availability of competent personnel and stable technology.

CONCLUSION

Medical record management at Dr. Hasri Ainun Habibie Regional General Hospital, Gorontalo Province, has generally been implemented adequately and is supported by human resources, technological infrastructure, electronic medical records, policies, and standard operating procedures. However, the findings indicate that several aspects still require improvement to ensure that medical record management can optimally support the quality of hospital services.

From the Man aspect, the medical record unit has 26 personnel, but only five have an educational background in Medical Records and Health Information (RMIK), while most of the remaining personnel have backgrounds in Public Health. Although the existing personnel are able to support medical record management activities, the limited proportion of personnel with specific RMIK qualifications indicates the need for strengthening professional

competencies and human resource composition.

From the Machine aspect, the hospital has provided computers, printers, scanners, internet access, and a SIMGOS-based electronic medical record system. Nevertheless, unstable internet connectivity, limited server capacity, and occasional disruptions to the SIMGOS system remain important obstacles. These technological constraints may affect the continuity and efficiency of medical record management, particularly in the process of entering and accessing patient information.

From the Method aspect, the hospital has established policies and standard operating procedures and has implemented electronic medical records as part of its medical record management system. This aspect is relatively adequate; however, the effectiveness of established procedures remains dependent on the availability of competent personnel and reliable technological infrastructure.

Overall, strengthening medical record management requires an integrated improvement of the Man, Machine, and Method aspects. The hospital should increase the availability and competency of personnel with RMIK backgrounds, strengthen internet and server infrastructure, ensure the reliability of the SIMGOS system, and periodically evaluate the implementation of medical record policies and SOPs. These improvements are expected to strengthen the accuracy, completeness, availability, and timeliness of medical information and ultimately contribute to the improvement of healthcare service quality.

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