

Implementation of Electronic Medical Record in Health Services at The RSIA Study Hospital Artha Mahinrus

Raden Roro Jenny Satyoputri¹, Redyanto Sidi²

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Corresponding Author

Raden Roro Jenny Satyoputri, Panca Budi Development University, Medan

Email: jenny.satyo111@gmail.com

Abstract

The use of Electronic Medical Records (EMR) has become a global standard in the digitalization of health services, which is aimed at increasing the efficiency and quality of medical services. However, the implementation of EMR in Indonesia, especially at RSIA Artha Mahinrus, Medan, faces certain challenges. This research aims to identify and analyze the obstacles that hinder the full adoption of EMR at RSIA Artha Mahinrus and evaluate the efforts made by the hospital to ensure compliance with applicable regulations and provide legal protection for patients. This study raises two main problems: first, what factors hinder the implementation of EMR at RSIA Artha Mahinrus; second, how RSIA Artha Mahinrus maintains legal compliance and provides excellent service while transitioning to the use of EMR. This research uses a normative juridical approach, through analysis of relevant policy and regulatory documents, as well as interviews with stakeholders at RSIA Artha Mahinrus. Secondary data was collected from statutory regulations, scientific journal articles, and internal hospital documentation to analyze and interpret the legal framework governing EMR and its practice in the field. The research results show that technical and administrative obstacles are the main factors influencing the slow implementation of EMR at RSIA Artha Mahinrus. Although not yet fully using EMR, RSIA Artha Mahinrus has carried out various initiatives to meet legal standards and improve medical services, such as developing a patient complaint system, staff training, and collaborating with insurance providers.

Keyword: Electronic Medical Records, Legal Protection, Health Services

1. INTRODUCTION

Development digital technology has bring change significant in various aspect life, incl in sector health. Transformation digitalization in service health bring up need will management record medical in a way electronic, which is not only notice efficiency and effectiveness service but also make sure principle security and confidentiality of data and information patient. Record medical electronics (EMR), as one of the subsystem from system information facility service health, be component crucial connected with subsystem other information on the facility. Publishing Minister of Health Regulation No. 24 of 2022, replaces regulations previous, marking milestone important in maintenance record medical electronics in Indonesia, mandates all facility service health For implement EMR accordingly with established standards. Record medical, which is documentation comprehensive about identity patient, history examinations, treatment, actions, and services health that has been given, held vital role in system health. Implementation record medical electronic aim for increase quality service health through more data management organized, delivering certainty law on management and administration record medical, as well ensure security, confidentiality, integrity and availability of patient data. EMR is also directed for realize administration and management record digital-based and integrated medical care, facilitating access fast and accurate to important patient data for practitioner health in taking decision medical. With oblige EMR implementation throughout facility service health, including hospitals, clinics, laboratories, and others, government endeavor for ensure that benefit record medical electronic can felt by all holder interest in system health. These benefits covers, but No limited to, maintenance health and treatment patient, tool proof in legal processes, education, research, basic financing health, and collection of statistical data health. Through EMR, hopefully happen enhancement quality service safety- oriented health patient, efficiency time and costs, as well enhancement coordination and communication between provider service health. Success implementation

record medical electronic need understanding deep about various aspect, start from administration until law, which shows how breadth benefits and uses record medical electronic in practice modern health. With thus, this research no only study aspect technical and benefits from the EMR but also highlights challenges and obstacles possible law faced in implementation, remember importance guard security and confidentiality of patient data in this digital era.

This study endeavor for give outlook comprehensive about implementation of EMR in Indonesia, identify opportunities and challenges, as well give recommendation strategic for ensure protection law and improvement quality service health at home illness and facilities health other. In context law, the implementation of Electronic Medical Records (EMR) touches on several issue related critical issues with personal data protection, security information, and compliance to existing regulations. In many countries, including Indonesia, the development and implementation of EMR is regulated by a framework purposeful law for protect rights patient while facilitate innovation in service health. In narrative background behind study it is us will explore aspects related laws with the EMR, pay attention how regulations handle challenges that arise from digitalization notes health. Framework law for EMR in Indonesia has been experience evolution, with Minister of Health Regulation No. 24 of 2022 becomes milestone latest in effort increase implementation of EMR in the facility service health. This regulations no only replace regulation previously but also set standards and requirements new for administration and management record medical electronic, with objective main for increase quality service health and protect patient data. From perspective law, challenge main in EMR implementation includes aspect data security, confidentiality information patients, and integration compliant system regulations. Personal Data Protection Law, which still exists in the legislative process in many countries, including Indonesia, is expected will give more foundation strong for data protection in EMR. Confidentiality and data security in EMR is not only is interest patient but also becoming not quite enough answer law for provider service health. Violation to principle this can result penalty law and loss reputation for facility health. Apart from that, the issue interoperability and standardization EMR systems give rise to challenge other. For reach service Efficient and effective healthcare, EMR systems must be can communicate and exchange data with safe between various platforms and providers service health. This matter need framework supporting law standardization and interoperability EMR system. Effective and safe EMR administration need cooperation between maker policy, provider service health, and technology information for ensure that EMR systems do not only fulfil need clinical but also obey provision applicable law. This matter including ensure that the EMR is protected from access no lawfulness, data manipulation, and violations privacy. Obedience to regulations national and international become key for build trust patient and make sure continuity service quality health. Based on background behind study about Electronic Medical Record (EMR) implementation and protection law as well as challenge in service health at hospital, two formulations the problem discussed is : How Legal Arrangements for Electronic Medical Records (EMR)? and how standardization Electronic Medical Record (EMR) system for support efficiency and effectiveness service health ?

2. RESEARCH METHODOLOGY

This study adopt method juridical normative, which focuses on analysis to regulation legislation, documents policies, as well literature relevant laws with Electronic Medical Records (EMR) and protection law related. This approach chosen for deepen framework laws governing EMR, evaluate obedience against existing legal norms, and identify challenge emerging law in implementation at hospital. Analysis done through collection of sourced secondary data from regulation legislation, jurisprudence, documents policy government, articles journal scientific, books and other related sources with subject study. This approach possible researcher for understand and interpret framework law in a way comprehensive, as well analyze the implications to practice administering EMR at the facility service health. In this research, researchers will too use analysis comparative for compare regulations and practices possible implementation of EMR between Indonesia and other countries own system similar laws and challenges or different. This matter aim for identify best practices and lessons learned adapted for overcome challenge law in implementation of EMR in Indonesia. Analysis comparative this will done with consider aspects like data security, privacy patient, interoperability system, as well mechanism monitoring and enforcement law. Through method juridical normative and analysis comparative, research This expected can give based recommendations proof for strengthen protection law and overcoming challenge in implementation of EMR at hospital, all at once support enhancement quality service health.

3. RESULT AND DISCUSSION

Minister of Health Regulation no. 24 of 2022 concerning Medical Records

Record medical is element key in provision service medical, remembering he covers information sensitive and confidential written information, including identity data patients, as well all over history examination, treatment, and services health that has been provided. This reflects importance guard confidentiality in practice medical and confirm security information patient. The concept of " *ALFRED* " outlines benefit record medical covers aspect administrative, which explains action and responsibility answer power medical; Legal, that shows record medical as proof in enforcement law; Financial, as base for determine cost service medical; Research, for development knowledge knowledge and technology; Education, as reference learning ; and Documentation , as notes medical who have performed on patients. Change significant in regulations record medical introduced through Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022, which replaces regulation previously for adapt with progress technology and needs service health. This regulation set framework law new for maintenance record medical electronics, focusing on three aspect main: system electronics, activities maintenance, and security as well as data protection. That matter stated in Article 2 of the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical records.

Section 2

Medical Record Management aims to:

- a. improving the quality of health services;
- b. provide legal certainty in the administration and management of Medical Records;
- c. guarantee the security, confidentiality, integrity and availability of Medical Record data; And
- d. realizing the implementation and management of digital-based and integrated Medical Records.

Article 2 of the Minister of Health Regulation no. 24 of 2022 concerning Medical Records sets the objectives for regulating medical records which include aspects of improving the quality of health services, legal certainty, data security and digital system integration. The use of Electronic Medical Records (EMR) can provide various benefits regarding the importance of this system in preventing administrative fraud that can harm patients for example:

- a. Improving the quality of health care: EMRs enable doctors and medical staff to access patient health information quickly and accurately, which is critical in medical decision making. For example, instant access to a patient's drug allergy history can prevent administration of medications that could potentially harm the patient.
- b. Provides legal certainty in the administration and management of Medical Records: EMR helps ensure that health records are maintained in accordance with applicable legal standards, which regulate how data must be recorded, stored and shared. This reduces the risk of documentation errors and ensures regulatory compliance.
- c. Guaranteeing the security, confidentiality, integrity and availability of Medical Record data: EMR systems that are equipped with security protections such as encryption and two-factor authentication can reduce the risk of unauthorized access that could lead to data breaches. This is critical to protecting patient privacy and maintaining public trust in the health system.
- d. Achieve digital-based and integrated medical record administration and management: EMR integration facilitates better coordination between health service providers, which can reduce duplication of efforts and speed up administrative processes, thereby reducing waiting times and increasing operational efficiency.

One form of abuse that can be avoided by using an EMR is unnecessary duplication of medical procedures. Without an EMR, it can be difficult to keep track of all the tests and procedures a patient has had across multiple healthcare facilities. This can result in patients undergoing the same tests repeatedly, which is not only financially detrimental but can also pose health risks. An EMR allows all patient medical information to be centralized and accessible to multiple healthcare providers, thereby avoiding duplication and potential medical errors. The specifications that must be in the EMR are contained in article 12 of this ministerial regulation.

Article 12

- (1) Health Service Facilities providing Electronic Medical Records or Electronic System Operators as intended in Article 9 paragraph (1), are required to register the Electronic System they use with the Ministry of Health.
- (2) Electronic System Registration as intended in paragraph (1) is carried out by attaching documents consisting of at least:
 - a. name of Electronic System;
 - b. system documentation;
 - c. available features/functions;
 - d. data storage location;
 - e. variables and meta data;

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After the issuance of this Minister of Health Regulation, all health services, including hospitals, independent practices and other health services, are required to provide electronic medical services. This is stated in Article 3 paragraph.

Article 3

- (1) Every Health Service Facility is required to maintain Electronic Medical Records.
- (2) Health Service Facilities as intended in paragraph (1) consist of:
 - a. independent practice places for doctors, dentists and/or other Health Personnel;
 - b. Public health center;
 - c. clinic;
 - d. hospital;
 - e. pharmacy;
 - f. health laboratory;
 - g. hall; And
 - h. Facility Service Health other Which setby Minister.

As for the derivative of Article 3 above, in the form of an affirmation that every medical service is obliged to implement electronic medical records, this is contained in Article 42. However, there is no time period for the grace period given by the Ministry of Health for each medical service to adjust and transition changes to existing medical records. This is a manual for electronics.

Article 42

- (1) In carrying out guidance and supervision, the Minister may impose administrative sanctions on Health Service Facilities that violate the provisions as intended in Article 3.
- (2) The imposition of administrative sanctions by the Minister as intended in paragraph (1) is carried out through the Director General
- (3) Administrative sanctions as intended in paragraph (1) are in the form of:
 - a. written warning; and/or
 - b. recommendations for revocation or withdrawal of accreditation status.

Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning this medical record also seems like a breath of fresh air for patients undergoing medical treatment and provides legal protection for them, as stated in article 29.

Article 29

- (1) Records must meet the principles of data and information security, including:
 - a. confidentiality;
 - b. integrity; and
 - c. availability.
- (2) Confidentiality as referred to in paragraph (1) letter a is a guarantee of the security of data and information from interference by internal and external parties who do not have access rights, so that the use and distribution of data and information contained in Electronic Medical Records is protected.
- (3) Integrity as referred to in paragraph (1) letter b is a guarantee of the accuracy of the data and

information contained in the Electronic Medical Record, and changes to the data may only be made by people who are given access rights to make changes.

- (4) Availability as intended in paragraph (1) letter c is a guarantee that the data and information contained in the Electronic Medical Record can be accessed and used by people who have access rights determined by the head of the Health Service Facility.

RSIA Artha Mahinrus, located in Medan Perjuangan District, Medan City, North Sumatra, is a health facility that focuses on obstetrics and gynecology services. Although this hospital has adequate infrastructure with three floors and fairly complete facilities, including inpatient rooms and ICU, the transition to EMR has not been fully implemented. RSIA Artha Mahinrus, even though it has a digital bookkeeping system that is almost similar to EMR, apparently does not meet all the EMR criteria as set by the Minister of Health Regulation. The system used is still manual, where patient health data and information is stored in computers without integration or functions required by EMR regulations. This indicates that there are deficiencies in more sophisticated aspects of integration, automation and data security. One of the main challenges faced by RSIA Artha Mahinrus in implementing EMR is that there has not been effective collaboration with EMR vendors. According to an interview with the owner of RSIA, the hospital has tried several times to collaborate with various EMR vendors but has not found a suitable agreement, both in terms of the technology offered and implementation costs. This condition shows the importance of choosing a vendor that not only provides adequate technology solutions but also supports overall system integration at a reasonable cost.

The second reason that causes delays in implementing EMR is the perception that the need for EMR is not very urgent. Considering that RSIA Artha Mahinrus has a relatively small capacity with a limited number of patients, it is equipped with 10 inpatient rooms, a capacity of 24 beds, and 2 beds in the ICU unit. Management may not yet see the urgency for a major investment in EMR. In addition, the main focus of hospital services which is limited to obstetrics and gynecology may be deemed not to require a very complex medical record system. Legal protection of patients is an important component in health facility management. RSIA Artha Mahinrus, as a health service provider that focuses on obstetrics and gynecology, has taken various proactive steps to ensure that patient rights and safety are protected. The policies and practices adopted by these hospitals not only support compliance with local and national regulations, but also increase patient confidence and satisfaction. The following are several strategies and policies that have been implemented by RSIA Artha Mahinrus to provide legal protection to patients:

1. Complaint Link: RSIA Artha Mahinrus has posted a complaint link on various notice boards throughout the hospital facilities. This allows patients and their families to easily submit complaints or feedback regarding the services received. The existence of this easily accessible complaint system not only increases transparency but also allows hospital management to immediately respond and resolve problems that may arise, thereby minimizing the potential for litigation and increasing compliance with service standards.
2. Structured Hospital Management: Establishing effective hospital management is key in implementing and monitoring hospital policies. RSIA Artha Mahinrus has established a management team consisting of trained professionals who not only manage daily operations but also ensure compliance with all applicable health regulations. This management is responsible for overseeing the implementation of internal policies and ensuring that all procedures and protocols are implemented appropriately to protect patients and staff.
3. Excellent Service: RSIA Artha Mahinrus is committed to providing excellent service that emphasizes patient safety and service quality. This excellent service includes regular training for staff on best practices in patient care, use of the latest technology in medical care, and an emphasis on a patient-centric approach that ensures patient satisfaction and safety.
4. Patient Data Security Protocol: Considering the importance of confidentiality and integrity of patient data, RSIA Artha Mahinrus adopts strict security protocols to protect patient personal information. This includes the use of sophisticated digital security systems and training of staff on the importance of maintaining the confidentiality of information. This protocol is designed to meet or exceed the standards set by national and international data protection regulations.
5. Regular Audits and Updates: To ensure that all practices and procedures remain relevant and effective, RSIA Artha Mahinrus conducts regular internal audits. These audits help identify areas that need improvement and ensure that the hospital continues to comply with changes in health regulations.

Policy updates are carried out based on audit findings to correct weaknesses and increase the effectiveness of patient protection.

6. Collaboration with Insurance Providers: RSIA Artha Mahinrus also collaborates with various health insurance providers to ensure that patients can access their services easily and are financially protected. This collaboration helps reduce the burden of medical costs that may arise and strengthens the financial support network for patients.

These policies and practices demonstrate RSIA Artha Mahinrus' commitment to prioritizing patient safety and legal interests. By implementing this strategy, RSIA Artha Mahinrus not only improves the standard of health services they offer but also confirms their position as an institution that is responsible and complies with the law. This is a vital step in building patient trust and satisfaction, which will ultimately impact the hospital's reputation and long-term success.

4. CONCLUSION

Discussions regarding the implementation of Electronic Medical Records (EMR) at RSIA Artha Mahinrus have shown several challenges faced in the transition from manual to digital medical record systems. Even though to date RSIA Artha Mahinrus has not fully implemented EMR, factors such as the absence of an agreement with the appropriate vendor and management's perception of a lack of urgency have become major obstacles. However, this does not mean that RSIA Artha Mahinrus ignores the importance of excellent service and legal certainty for patients. RSIA Artha Mahinrus actively implements various policies and strategies that demonstrate a strong commitment to patient protection and safety. By providing an easily accessible complaint mechanism, structured hospital management, excellent service, strict data security protocols, regular audits, and collaboration with insurance providers, RSIA Artha Mahinrus confirms its position as a responsible and legally compliant health facility. These initiatives not only meet compliance standards but also increase patient trust and satisfaction, which is critical in today's healthcare context. It is true that technological and administrative challenges have hindered full adoption of EMR, but RSIA Artha Mahinrus has demonstrated unwavering dedication to improving the quality of service and ensuring a safe experience for all patients. The hospital is committed to continuing to address existing barriers and hopes to find solutions that will enable future EMR implementation. This is important not only to comply with regulations but also to utilize technology to increase the efficiency and effectiveness of health services. In conclusion, even though RSIA Artha Mahinrus has not yet implemented EMR, the efforts made to provide legal protection and excellent service to patients should be appreciated. In the future, by continuing to adapt and look for the right solutions, RSIA Artha Mahinrus is expected to be able to integrate EMR into its system, thereby strengthening the foundation for better and more integrated health services. This will support RSIA Artha Mahinrus not only in meeting legal standards but also in providing high quality health services to the community.

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