



An Implementation of Electronic Medical Records Reviewed from the Legal Aspects of Electronic Medical Records Security in Hospitals at Madiun City Area

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ABSTRACT

In the health sector in medical facilities, trying to switch from manual medical records to electronic medical records. In 7 Hospitals in Madiun City Electronic Medical Records have been implemented in 5 Hospitals and 2 Hospitals have not implemented Electronic Medical Records. The purpose of this study is to Know the Legal Aspects of EMR privacy data security, Knowing the Policy, Confidentiality, Integrity, Availability of Electronic Medical Records (EMR) in Hospitals in the Madiun City Region. This study uses a Qualitative Descriptive method. The subjects in this study were 9 people, namely 4 RM officers, 4 IT officers, 1 legal officer. The object in this study is the Implementation of Electronic Medical Records in 4 Hospitals in the Madiun City Region. The results of this study are There is no specific regulatory policy related to EMR available in all hospitals in the Madiun City Region. Confidentiality in 4 Hospitals is already on the access rights and users to each PPA. Data accuracy in patient data input on Integrity in 4 Hospitals. Availability of 4 Hospitals in EMR data requests and exchangebridging. The conclusions of this study have not been fully implemented, as all hospitals still do not have specific policies regarding RME. The recommendation from this study is that hospitals should create specific regulations or Standard Operating Procedures regarding changes to RME.

Keywords: *Electronic Medical Records, Security, Privacy, Law*

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INTRODUCTION

I With the rapid advancement of technology, written files and documents are increasingly being replaced by digital data, and a multitude of utilities are being used. For example, in the healthcare sector, some medical facilities are attempting to transition from manual medical records to electronic medical records (EMDRs). EMRs are an electronic patient information record format where a person's health status is recorded by one or more medical records officers in an integrated manner (Potter, 2012).

According to the Indonesian Minister of Health Regulation No. 24 of 2022, as of September 12, 2022, the RME Regulation has been issued. This regulation supports efforts to transform medical technology in line with the Health Transformation Pillars. This policy also updates the previous regulation, namely Minister of Health Regulation No. 269 of 2008, which regulates coordination between the development of science and technology, service needs, policies, and laws and regulations in the field of public health in Indonesia. The implementation of RME in healthcare facilities may certainly

encounter obstacles, such as in hospitals in Indonesia. Network issues affect services, the absence of specific operational procedures to handle them, and the readiness of medical staff affects the limited number of patients examined by doctors (Nurfitria et al., 2022).

One effort to improve and expedite the flow of medical information for certain procedures is the creation and transmission of medical information via computer. On the other hand, this may raise concerns about patient security and privacy. Legal issues will arise if patient medical information is misused, and doctors or hospitals will be held liable. Computerization generally results in paperless medical records—that is, medical records that only use paper for essential information—rather than completely paperless medical records. Paper records are necessary for storing certain data, including identification information, informed consent, consultation results, radiology results, and image data (Ummu & Ahmadi, 2022). According to Article 46 of Law No. 44 of 2009 concerning Hospitals, hospitals are legally responsible for any losses resulting from the negligence of hospital personnel. A hospital's legal responsibility in providing medical services to patients can be viewed from the perspectives of administrative law, civil law, criminal law, and professional ethics.

Based on the research results, four hospitals in the Madiun City area have implemented a series of Electronic Medical Records (EMR) implementations, which are still fully implemented in stages. Regarding specific EMR policies in the four hospitals in the Madiun area, there are none yet; only orders exist, and these only exist in three hospitals in the Madiun City area. Regarding SOPs, there have been changes to the EMR SOP, but they are still in process and have not been approved by the Hospital Director. Furthermore, regarding security at the four hospitals in the Madiun City area, confidentiality, integrity, and availability are sufficient in accordance with the regulations of the Minister of Health Regulation No. 24 of 2022 concerning Electronic Medical Records.

METHODS

In this study, the researcher used a descriptive qualitative method. This qualitative study aims to determine "The Implementation of Electronic Medical Records from the Legal Aspect of Electronic Medical Record Security in Regional Hospitals in Madiun City." The purpose of choosing this research design is so that the author can describe, explain, and draw conclusions by using interview, observation, and documentation study methods.

RESULTS AND DISCUSSION

Based on the results of observations, interviews and documentation studies on the implementation of Electronic Medical Records reviewed from the legal aspects of Electronic Medical Record security at the Madiun City Regional Hospital, it is known that:

Regulatory policies on the implementation of Electronic Medical Records (EMR) at the Madiun City Regional Hospital

Based on the results of interviews in May with RM officers at the hospital, regarding the implementation of Electronic Medical Records at DKT Hospital and implementing EMR in 2023. Based on the results of interviews with RM officers at the hospital, regarding specific regulatory policies related to the implementation of Electronic Medical Records at DKT Hospital there are no. Then the results of interviews with IT officers at the hospital, regarding policies regarding EMR security at

DKT Hospital there are, but cannot be disclosed because it concerns the privacy of the hospital. If you want to see it, you must submit a request letter to the management of DKT Hospital. Based on the results of the Legal basis documentation for EMR at DKT Hospital, it already refers to the Minister of Health Regulation 24 of 2022. Because the hospital has made changes to EMR although it is still being implemented in stages.

Policies are government initiatives designed to meet community needs (Permatasari, 2020). The Indonesian government implemented a new regulation in July 2022, specifically requiring healthcare institutions to use patient medical records. The previous regulation, PMK No. 269 of 2008, was replaced by PMK No. 24 of 2022. The Indonesian government understands that the use of traditional medical records in the current context is no longer relevant due to rapid technological advances. Therefore, patient medical records must be digitally transformed and processed electronically. Policies must be evaluated to determine the extent to which objectives have been achieved and what needs to be maintained or improved to create a more useful policy. Evaluation can be used to track the progress of a program within a policy (Prabowo et al., 2022). When implementing regulations, evaluation is a crucial step that needs to be completed (Hajaroh, 2019). The regulatory policy on the implementation of EMR does not align with Affrian's theory in 2020 because specific regulatory changes related to EMR are required for implementation.

According to researchers, the Electronic Medical Records policy at DKT Hospital is not yet in accordance with theory. Policies must be evaluated to determine the extent to which goals have been achieved and what needs to be maintained or improved to create a more beneficial policy. Evaluation can be used to track the progress of a program within a policy (Prabowo et al., 2022).

Hospitals should create specific regulations or Standard Operating Procedures (SOPs) regarding changes to the RME in accordance with Minister of Health Regulation No. 24 of 2022 for DKT Hospitals. Specific policies and SOPs related to RME should be implemented and applied to PPA (Professional Care Providers).

Confidentiality of Electronic Medical Records (EMR) at Madiun City Regional Hospital

Based on the results of interviews with RM officers in May 2024 regarding the privacy and security of patient data. For DKT Hospital, there are already regulations in the SOP for Privacy and Confidentiality of Medical Records, which already have procedures governing it. Based on the results of interviews with IT officers in May 2024 regarding the protection of EMR data from ransomware or cyber threats. DKT Hospital protects data by sending data to the central hospital, which will then have its own security within it. Based on the results of observations, there are security aspects in the Electronic Medical Records system to prevent data leaks, such as access rights granted only to PPA and the availability of server space for EMR data storage.

Information security, as defined by Whitman and Mattord (2010), is a means of protecting data and the important components contained therein, such as availability, confidentiality, and integrity, as well as the hardware systems used to store and transmit such data. Article 26 of Law No. 19 of 2016 concerning Information and Electronic Technology states that privacy is the right of every individual to limit who can use information about his/her identity, whether used by himself/herself or by others. The law also mandates that anyone using electronic media to access information regarding a person's personal data must obtain the consent of that person. This is in line with the authority of the PPA in four hospitals around Madiun City. Personal data protection is defined as a comprehensive effort to protect personal data

during personal data processing to guarantee the right to consultation of personal data subjects in Law No. 27 of 2022 on Personal Data Protection Article 1 (2). Electronic system providers are required to make their best efforts to protect personal data and notify law enforcement or the authorized Supervisory and Regulatory Authority immediately after a serious system failure or disruption occurs, in accordance with Article 20(3) of PP No. 82 of 2012 concerning the Implementation of Electronic Systems and Transactions. As stated in the book *Enforcement of Cybercrime Law through Criminal Law According to Rizky P's report (2019)*, individuals who experience losses or damages due to the unauthorized use of their personal data can file a claim for compensation with the appropriate court. This is in accordance with the provisions of Article 26 paragraph (2) of Law 19/2016.

According to researchers, the confidentiality of Electronic Medical Records (EMR) complies with Law No. 27 of 2022 concerning the protection and security of patient data privacy. The EMR at DKT Hospital in Madiun City is quite secure. This is because the data implementation, data input, and patient data processing are carried out by authorized personnel with operational access rights.

It's best for DKT Hospital to use a vendor for its SIMRS. Furthermore, DKT Hospital should maintain access rights related to user names and passwords, ensuring they are known only to staff and accessible only within their unit.

Integrity of Electronic Medical Records (ERR) at Madiun City Regional Hospital

In an interview with a RM officer in May 2024 regarding the integrity and accuracy of data at DKT Hospital, the officer requested patient identification in the form of a KTP or BPJS when inputting patient data. After the data has been inputted, it will be entered and then stored in the SIMRS. Only authorized officers or officers given full access rights, namely PPA, can input data. Usually, the data can only be accessed within their unit, not other units. If the data is accurate, it will be automatically saved in the server room at the hospital. Furthermore, an interview with an IT officer regarding the backup and data recovery procedures at DKT Hospital, the data backup process is already automatic. However, at DKT Hospital, there is a UPS/battery process that takes 10 minutes to turn on. According to the results of observations at DKT Hospital in the Madiun City area, the operation of Medical Records is carried out with the authority and responsibility of each.

Data integrity is managed through error checking and routine validation by users (Handrini et al., 2018) Article 4 (1) of the Republic of Indonesia Law No. 27 of 2022 concerning Personal Data Protection states that personal data consists of two types: (1) unique personal data and (2) general personal data. Article (2) Certain personal data as referred to in paragraph (1) letter a includes: a. health information and data; b. biometric information; c. genetic information; d. criminal records; e. child information; f. personal financial information; and/or g. other information as permitted by law. Article (3): Personal information as referred to in paragraph (1) letter b includes: a. Full name; b. Gender; c. Citizenship; d. Religion; e. Marital status; and/or f. Personal information combined to identify a person. Article 28 Personal data controllers are required to process information in a manner consistent with the purpose of use. Article 36 Controllers are required to protect the confidentiality of personal data when processing it. Article 49 The personal data controller is responsible for how personal data is processed and for carrying out its duties to implement the principles of personal data protection. The purpose of creating backups is to recover lost or damaged data and any data needed at that time (Kurniawan & Widjarto, 2018).

According to researchers, the integrity of Electronic Medical Records (ER) complies with Article 36 of Law No. 27 of 2022 concerning personal data protection. Controllers are required to protect personal data when processing it; however, there are no EMR Standard Operating Procedures (SOPs) governing who may enter or process data that is not yet available.

DKT Hospital should maintain personal data protection by using usernames and passwords known only to staff and accessible only within their unit. DKT Hospital should also establish a specific policy governing access rights for data integrity for EMRs and Professional Caregivers when inputting data to ensure accurate data.

Availability of Electronic Medical Records (ERR) at Regional Hospitals in Madiun City

According to the results of interviews conducted in May at the DKT Hospital in the Madiun City Region with RM officers regarding requests for RME information with external parties, namely regarding requests for RME information may be requested but through stages such as submitting a letter to the Hospital Director. According to the results of interviews conducted in May with IT officers at the DKT Hospital in the Madiun City Region regarding the exchange of RME information. for DKT Hospital, you can request it directly by contacting the DKT Hospital management with the approval of the DKT Hospital director.

According to Sutabri, 2018, an information system is a system that can be defined by collecting, processing, storing, analyzing, and disseminating information for specific purposes. In the research of Permana & Rumana (2017), and Siswati, Adinda & Agnesia (2018), the release of information can be granted if there is a written request for release from the patient or court and shows the original identity stating the relationship between the requester and the patient. The request for the release of medical information is made in writing and medical information can only be released with a power of attorney from the patient (Ministry of Health, 2006). In line with the KIP Law, Article 4 (3), every request for public information has the right to submit a request for public information accompanied by the reasons for the request. In the ITE Law, Article 26 (3), every Electronic system organizer is required to delete irrelevant electronic information and/or electronic documents under its control at the request of the person concerned based on a court decision. Minister of Health Regulation No. 24 of 2022, Article 33 (2), requests for opening the contents of Medical Records as referred to in paragraph (1) must be carried out in writing or electronically.

When requesting information on RME and exchanging RME at DKT Hospital in the Madiun City area, existing regulations must be followed and the hospital can create its own regulations and policies if necessary.

It would be advisable for DKT Hospitals to have a separate legal team to protect and enforce the confidentiality, integrity, and availability of EMR. Furthermore, DKT Hospitals can implement data bridging when exchanging and providing information with external parties for greater security. All hospitals can also create their own regulations regarding EMR exchange, which can serve as a reference for the PPA in providing information and exchanging EMR data with external parties, in line with the Public Information Disclosure Law.

CONCLUSIONS

In this study entitled Implementation of Electronic Medical Records Reviewed from the Legal Aspect of Electronic Medical Record Security in Madiun City Regional Hospitals, it can be concluded: The regulatory policy on the implementation of

Electronic Medical Records in DKT Hospitals in Madiun City in accordance with the Regulation of the Minister of Health No. 24 of 2022 has not been fully implemented, because all Hospitals still do not have specific regulatory policies regarding Electronic Medical Records. Security in the confidentiality of Electronic Medical Records at DKT Hospitals in Madiun City The Hospital does not yet have procedures for maintaining the confidentiality of Electronic Medical Records. There is a privacy and confidentiality SOP at DKT Hospitals. Then in protecting against cyber threats, DKT Hospitals have their own central server outside the city. Security in Integrity at DKT Hospitals in Madiun City obtained the results of integrity and data accuracy processes that are in accordance with the Professional Care Providers in each unit who already have access rights such as different users and passwords.

In this case, the researcher has suggestions that may be used in the development of Hospitals Regarding the Implementation of Electronic Medical Records: It is recommended that Hospitals create special regulatory policies or Standard Operating Procedures related to changes in EMR in accordance with Minister of Health Regulation No. 24 of 2022 at DKT Hospitals. Then, special regulatory policies and SOPs related to EMR can be implemented on (Professional Care Providers) PPA. Meanwhile, regarding the threat of ransomware or cyber attacks, all Hospitals must be fully responsible if data leaks occur, especially in Level IV Hospitals that use vendors as their SIMRS. It is recommended that Level IV Hospitals can maintain personal data protection by using users and passwords that are only known to officers and can be accessed only in their units. It is recommended that Level IV Hospitals also require special policies that regulate access rights in the integrity of EMR data, as well as Professional Care Providers when inputting data to obtain accurate data. It is recommended that Level IV Hospitals need a separate Legal Team, because for the protection and enforcement of the law regarding confidentiality, integrity, and availability of EMR. It is recommended that Level IV Hospitals. IV can bridge data when exchanging and providing information with external parties for greater security. Hospitals can also create their own rules regarding the exchange of EMRs, which can serve as a reference for the PPA when providing information and exchanging EMR data with external parties. Hospitals can align this with the Public Information Disclosure Law.

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