### Ensuring Patient Privacy through Regulations on Electronic Medical Records and Personal Data Protection

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**Abstract.** The impact of technology on healthcare, highlighting the necessity of transitioning to electronic medical records (EMRs) for improved efficiency and reduced errors. It emphasizes the importance of protecting personal information as medical data becomes digital, citing legislation like Act No. 27 Year 2022 aimed at ensuring data privacy and security. The paper evaluates Act Number 17 Year 2023 on Health in comparison with existing Ministerial Regulations on Medical Records, analyzing the new law's impact on medical records management and its relationship with current regulations. It examines the legal and practical implications of detailed changes, particularly regarding patient privacy and data security. The analysis provides insights into how these laws affect healthcare providers, patients, and medical record security within the evolving legal landscape.

**Keywords:** Technology Advancement, Electronic Medical Record, Personal Data Protection.

### 1 Introduction

Rapid technological advancements in the field of healthcare also influence the improvement of health services. The escalating pace of technology can enhance effectiveness and efficiency, particularly in healthcare services. One notable technological advancement in healthcare is Electronic Medical Records (EMR). Currently, there is an urgent need to transition to EMR as it can make patient care more efficient and reduce the risk of errors. Despite the benefits of technological progress in healthcare, there is a possibility of negative impacts. For instance, with the increasing circulation of medical data online, the risk of data breaches exists. Therefore, it is crucial to safeguard individuals' personal information.[1]

Protection of information and personal data in the context of online data circulation can be achieved through legal instruments, thereby providing protection with legal certainty. In Indonesia, regulations related to this protection have been established through laws such as Law Number 27 of 2022 Concerning Personal Data Protection. This law is enacted to ensure the security of personal data. The implementation of healthcare services using increasingly advanced technology poses a challenge. To achieve a proper balance between the use of technology to improve healthcare services, the use of EMR, and the protection of personal

data, supportive regulations are needed. An analysis of existing legal regulations and their interconnections is necessary for this purpose.[2]

Medical professionals play a crucial role in the healthcare industry, encompassing a diverse group of professionals who provide care and services to those who are ill and in need. This includes doctors and nurses who provide direct patient care and make diagnoses, as well as other healthcare professionals who work to prevent diseases, disabilities, and support the overall well-being of patients.[3] Based on Law Number 17 of 2023 Regarding Health, there is a distinction between the definitions of medical personnel and healthcare personnel. Medical personnel include doctors and dentists, while healthcare personnel are defined as professionals in other health-related fields. Effective collaboration among medical personnel and healthcare personnel significantly influences patient safety and treatment outcomes, emphasizing the need for interdisciplinary collaboration in healthcare delivery.[4]

The services provided by healthcare professionals are characterized by a commitment to patient-centered care, where the preferences, needs, and individual values of patients are respected and considered. Healthcare professionals aim to prioritize patient values while ensuring high-quality healthcare services.[5] As members of interdisciplinary teams, medical personnel and healthcare personnel are educated to deliver patient-centered care and emphasize evidence-based practices, with the primary goal of improving patient outcomes and the quality of healthcare services.[6] As for the meaning of medical records, among them:

- 1. Medical records are documents that detail all aspects of a patient's history, clinical findings, diagnostic test results, pre- and post-operative care, patient progress, and medications.[7] Well-maintained medical records serve the interests of both medical personnel and their patients. It is crucial for attending physicians to thoroughly document the management of patients under their care. The documentation of medical records has evolved into a science. The key to many medical malpractice claims lies in the quality of these medical records. The storage of medical records is the only way for physicians to prove that care was administered correctly. Medical records often serve as the sole source of truth and are generally more reliable than memory.[8]
- 2. EMR are not merely digitized paper records. More precisely, EMR is a digital application that can actively interact with healthcare providers and patients. It consists of a set of data fields that can be analyzed, processed, and reported to support communication, appropriate clinical interventions, quality improvement, and patient safety.[9] EMR is considered one of the potential drivers for the transformation of healthcare. From the perspective of patient care, EMR is expected to enhance the accuracy of information, support clinical decision-making, and improve the accessibility of information for continuity of care. From an operational standpoint, EMR can provide crucial statistical information on healthcare treatment, essential for healthcare service planning and management.[10] The use of EMR has been proven to enhance performance across various quality indicators compared to using paper records. However, improving quality requires more than just electronic records. More effective and reliable care systems and workflows, guided by the information contained in electronic records, are needed for sustained performance improvement.[11]

The transition to Electronic Medical Records (EMR) raises concerns as a potential threat to the doctor-patient relationship, patient privacy, and an additional administrative burden on the healthcare system, contributing to medical personnel burnout.[12] Implementing and maintaining EMR systems involve high costs and can be challenging as they impact nearly every workflow and care process within clinical environments.

Personal data is information inherent to each individual, possesses a sensitive nature, and is a privacy right that must be protected for everyone.[13] This information is specific to certain individuals and is used to identify someone. The sensitive nature of personal data refers to the confidentiality and security of this information. Personal data often includes highly private matters, such as medical history, financial information, and even personal preferences. Personal data must be protected to ensure that individuals have control over their personal information and are not exposed to risks or detrimental threats. Privacy and personal data protection have significant implications for the progress of the digital economy, including in Indonesia. This is due to the crucial role of data as a primary asset in driving businesses in the digital era. Data has now become a key element in the identity of individuals that can be used in various contexts and value exchanges.[14] Regardless of our awareness, the digital era has resulted in the circulation of data that is increasingly difficult to control. Disruptions caused by the use of internet technology in various aspects of life have led to data owners losing control over their personal data. This poses a serious threat, especially with the rapid development of information technology, which has created new dynamics in the trading system.[15]

This writing will elaborate on the provisions of Law Number 17 of 2023 Regarding Health and its implementing regulations, particularly the Minister of Health Regulation on Medical Records. The objective is to understand how this new law influences the management of medical records and its relationship with existing regulations. Changes in the latest regulations will be explored in detail, and their legal and practical implications will be discussed. Additionally, it is essential to examine how Law Number 17 of 2023 Regarding Health relates to Law Number 27 of 2022 Concerning Personal Data Protection, particularly in the context of online healthcare services with personal data protection. A comprehensive study of these legal regulations is needed to ensure their harmonious and interconnected application in managing medical records, especially concerning patient privacy and data security. This analysis will discuss how these legal regulations impact healthcare service providers, patients, and the security of medical records in the ever-evolving legal landscape.

#### 2 Method

This research is normative in nature, specifically a literature-based study (Library Research). Library research is conducted by collecting data from literary materials related to the researched problem. The secondary data sources used in this writing can include legal sources such as decisions and textbooks containing the basic principles of legal science and classical views of highly qualified scholars. Library studies involve the examination of books, literature, notes, and reports related to the problem being addressed. The conceptual approach is employed, integrating the scholarly perspective of legal science with legal theory to examine the relevant issues. The conceptual approach derives from views and doctrines that evolve within legal science. By studying these views and doctrines, the author discovers ideas that give rise to legal understandings, legal concepts, and legal principles relevant to the issues at hand. The methodological approach used by the author is a legislative approach, specifically

referring to Law Number 17 of 2023 Regarding Health, Minister of Health Regulation on Medical Records, Law Number 27 of 2022 Concerning Personal Data Protection, and other related regulations.

### 3 Results and Discussion

## 3.1 The provisions for Electronic Medical Records (EMR) in Law Number 17 of 2023 Regarding Health and the Minister of Health Regulation on Medical Records

According to the explanation of Article 173 Paragraph (1) Letter c of Law Number 17 of 2023 Regarding Health, it is mentioned that medical records are documents containing patient identity data, examinations, treatments, procedures, and other services provided to patients made using an electronic system intended for the management of medical records. In cases where Healthcare Facilities cannot conduct electronic medical records due to technical obstacles, non-electronic medical records can be used until the obstacles are resolved. Subsequently, the data from non-electronic medical records is re-entered into the electronic medical records system. Meanwhile, Article 1 Number 1 of the Minister of Health Regulation Number 24 of 2022 Regarding Medical Records states that Medical Records are documents containing patient identity data, examinations, treatments, procedures, and other services provided to patients. Article 1 Number 2 further explains that Electronic Medical Records are medical records created using an electronic system intended for the management of medical records. Based on the definitions mentioned above, it is evident that Law Number 17 of 2023 Regarding Health provides a more comprehensive explanation by stating that medical records are created using an electronic system. Moreover, if healthcare facilities encounter technical obstacles in conducting electronic medical records, non-electronic medical records can be used until the obstacles are resolved, followed by the re-entry of data into the electronic medical records system.[16]

Meanwhile, in the Minister of Health Regulation Number 24 of 2022 Regarding Medical Records, there is still a distinction between the understanding of medical records and electronic medical records. Thus, the emphasis on electronic systems is more pronounced in the newer regulations. Although Regulation Number 24 of 2022 Regarding Medical Records still distinguishes between medical records and electronic medical records, Article 3 Paragraph (1) of the regulation states that every Healthcare Facility is obliged to implement Electronic Medical Records. Other articles in the regulation also focus on electronic medical records. In fact, Article 45 mandates that all healthcare facilities must implement electronic medical records in accordance with the provisions in Minister of Health Regulation Number 24 of 2022 Regarding Medical Records by no later than December 31, 2023.[17]

Almost all healthcare facilities had adopted electronic medical records by 2022. However, the Chairman of the Data and Information Central Compartment of the Indonesian Hospital Association revealed that not all healthcare facilities were ready to implement electronic medical records. There are also healthcare facilities in remote areas with limited infrastructure to comply with Electronic Medical Records regulations based on Minister of Health Regulation No. 24 of 2022.

The challenges in implementing electronic medical records (EMR) in Indonesia have been a major concern. One of the main obstacles is the limited availability of internet access, which is a significant barrier in the implementation process. Additionally, special attention is needed regarding human resources with the expertise to manage and implement EMR in hospitals.

The availability of competent human resources is a key factor in the success of EMR implementation. Budgetary aspects are also a crucial consideration, given that the transition to EMR requires significant investment. Finally, changing the habits of the public in using EMR is also necessary, and education and socialization about the importance of EMR become crucial.[18] The efforts of the Ministry of Health to mandate the implementation of EMR in Minister of Health Regulation Number 24 of 2022 reflect a commitment to create a more efficient and integrated healthcare system.

Minister of Health Regulation Number 24 of 2022 Regarding Medical Records regulates provisions related to sanctions, wherein the Minister may impose administrative sanctions on healthcare facilities that violate regulations by not implementing electronic medical records. The administrative sanctions consist of written warnings and/or recommendations for revocation or withdrawal of accreditation status. Administrative sanctions are imposed based on reports of alleged violations originating from complaints and/or monitoring and evaluation results. Complaints can be filed by individuals. groups. institutions/organizations/agencies. In this regard, it is not specified when these sanction provisions can be enforced because Minister of Health Regulation Number 24 of 2022 Regarding Medical Records still provides tolerance for healthcare facilities to implement electronic medical records until December 31, 2023.

Article 189 of Law Number 17 of 2023 Regarding Health also stipulates that every hospital has an obligation to implement medical records. Further clarification in that article explains that implementing medical records means conducting medical record management in accordance with standards that are gradually aimed at achieving international standards. Based on this, it is known that the law has mentioned that medical record standards are gradually sought to achieve international standards, but it is not detailed how the process to achieve international standards is outlined. Additionally, the use of terminology aims to make it non-mandatory.

Regarding sanctions, Law Number 17 of 2023 Regarding Health also regulates that violations of hospitals failing to fulfill the obligation to implement medical records are subject to administrative sanctions in accordance with the provisions of the legislation. The details related to these administrative sanctions are not further regulated by the derivative regulations of the Law, so it can be concluded that the provisions of these administrative sanctions still refer to Minister of Health Regulation Number 24 of 2022 Regarding Medical Records.[19]

Regarding the confidential nature of the EMR content, some rights manifest the juridical nature of secrecy, namely:

- 1. Right of privacy
- 2. Patient's access rights
- 3. Right to medical confidentiality
- 4. Right to refuse to disclose medical secrets

The right to privacy is a personal right to freedom or autonomy to self-determine and should not be disturbed.[20] In the doctor-patient relationship, involving trust that the doctor has the ability to provide medical care and can be relied upon to maintain the confidentiality of medical information about patients, including their privacy. In this context, doctors have ethical responsibilities according to the Physician's Oath and also have legal obligations

according to applicable regulations to maintain the confidentiality of patients' medical records. The patient's access rights to their medical information have been regulated by Article 276 of Law Number 17 of 2023 Regarding Health, stating that patients have the right to access information contained in medical records. Furthermore, the right to medical confidentiality refers to secrets in the medical field. Doctors only have an obligation to maintain the confidentiality of information entrusted to them as part of their professional responsibilities in a profession that requires trust. This is regulated in the Indonesian Medical Code of Ethics. Lastly, the right to refuse disclosure refers to the right held by doctors to refuse or express disagreement with the disclosure of confidential information they know as medical professionals who have a role as a "trust beneficiary" with the responsibility to maintain the trust given by patients. Ethically, this is governed by the code of ethics.[21]

Article 32 Paragraph (1) of Minister of Health Regulation Number 24 of 2022 Regarding Medical Records mentions regarding the confidentiality of medical records, stating that the contents of medical records must be kept confidential by all parties involved in healthcare services in healthcare facilities even if the patient has passed away. Regarding the confidentiality of medical records, Article 296 Paragraph (5) of Law Number 17 of 2023 Regarding Health mentions that medical records must be kept and their confidentiality maintained by Medical Personnel, Healthcare Personnel, and the leadership of Healthcare Facilities. Furthermore, Article 297 Paragraph (3) also states that Healthcare Facilities must ensure the security, integrity, confidentiality, and availability of data contained in medical record documents. Moreover, Article 298 Paragraph (1) mentions that the Ministry responsible for health governance is responsible for managing medical record data in the framework of national health data management. Based on this, it is understood that the government has endeavored to provide protection for personal data in the health sector through legislative instruments, stating that data contained in medical records must be kept confidential, but there are no provisions that further regulate how confidentiality is maintained and the implications if that data is disclosed. The regulation states that further provisions regarding medical records will be regulated by Government Regulation, but as of now, such Government Regulation has not been created.[19]

The establishment of Minister of Health Regulation Number 24 of 2022 Regarding Medical Records is based on the consideration to implement the provisions of Article 47 paragraph (3) of Law Number 29 of 2004 concerning Medical Practice and Article 72 of Law Number 36 of 2014 concerning Healthcare Personnel, it is necessary to establish Minister of Health Regulation regarding Medical Records. Furthermore, it is explained in the new regulation, namely Law Number 17 of 2023 Regarding Health, that when Law Number 17 of 2023 Regarding Health comes into effect, all legislation that is the implementing regulation of Law Number 29 of 2004 concerning Medical Practice and Law Number 36 of 2014 concerning Healthcare Personnel is declared to still be in force as long as it does not contradict the provisions in Law Number 17 of 2023 Regarding Health.[19]

# 3.2 The relationship between Law Number 17 of 2023 Regarding Health and Law Number 27 of 2022 Regarding Personal Data Protection concerning the protection of individual data in EMR

Article 177 Paragraph (1) of Law Number 17 of 2023 Regarding Health states that every healthcare facility must keep the personal health secrets of patients. It is explained that the personal health secrets of patients encompass everything related to matters discovered by medical personnel and healthcare personnel in the course of treatment and recorded in the

patient's medical records, and are confidential. Personal Data Protection according to Article 1 Number 1 of Law Number 27 of 2022 Regarding Personal Data Protection is the entirety of efforts to protect personal data in the series of personal data processing to guarantee the constitutional rights of the personal data subject.

The presence of the Personal Data Protection Law can reduce the misuse, leakage, and trade of personal data, which are generally caused by cyber-attacks, human errors, system failures, and lack of compliance with regulatory obligations. The Personal Data Protection Law grants authority to the government to supervise the governance of personal data by electronic system organizers.

Previously, in the field of health, several laws provided guarantees for the protection of personal data, including:

- a. Law No. 29 of 2004 concerning Medical Practice
- b. Law No. 35 of 2009 concerning Narcotics
- c. Law No. 36 of 2009 concerning Health
- d. Law No. 44 of 2009 concerning Hospitals
- e. Law No. 18 of 2014 concerning Mental Health
- f. Law No. 36 of 2014 concerning Healthcare Personnel
- g. Law No. 38 of 2014 concerning Nursing
- h. Law No. 6 of 2019 concerning Midwifery

However, with the issuance of Law Number 17 of 2023 Regarding Health, all of the above laws no longer apply. The term medical confidentiality has also changed to health secrets. Every healthcare facility, medical personnel, and healthcare personnel must maintain the health secrets of patients. These health secrets must be kept except in cases of:[22]

- a. Fulfillment of law enforcement requests in the context of law enforcement;
- b. Control of outbreaks, epidemics, or disasters;
- c. Educational and research interests on a limited basis;
- d. Efforts to protect against threats to the safety of individuals or the community;
- e. Interests in maintaining health, medical treatment, and patient care;
- f. Patient's own request;
- g. Administrative interests, insurance payments, or health financing guarantees; and/or
- h. Other interests regulated by laws and regulations.

Specific derivative regulations in Law Number 27 of 2022 Regarding Personal Data Protection are needed to protect health personal data. Healthcare facilities require monitoring and supervision, and collaboration with external parties requires recommendations from the Ministry of Health. Socialization of personal data protection in healthcare is essential, and patients have the right to receive guarantees and information regarding the protection of personal data from healthcare facilities. The existence of the Personal Data Protection Law raises questions about whether hospitals are ready to face it. Therefore, it is important for

every hospital to have cybersecurity that can reduce the risk of data leaks. Information security literacy is also crucial, including avoiding the use of illegal software and maintaining internet security.

### 4 Conclusion

The advancements in technology within the healthcare sector, especially the implementation of Electronic Medical Records (EMRs), have accelerated the efficiency and quality of healthcare services. However, negative impacts such as the potential leakage of patients' personal data are also a concern. To protect personal data and maintain a balance between the use of technology in healthcare services and patient privacy, regulations such as Law Number 27 of 2022 concerning Personal Data Protection play a crucial role. Analyzing these legislative regulations is important to understand how recent healthcare laws like Law Number 17 of 2023 regarding Health relate to the protection of personal data in the context of online healthcare services and electronic medical records. It ensures the security and privacy of patients are upheld alongside advancements in healthcare technology.

Specific derivative regulations within Law Number 27 of 2022 concerning Personal Data Protection and Government Regulations providing further provisions regarding medical records are highly necessary. The government plays a crucial role in bridging this legal framework with specific needs within the healthcare sector. These regulations can outline more detailed technical guidelines concerning the protection of personal health data. This encompasses security standards that healthcare service providers must adhere to in managing patient data, procedures for reporting data breaches, and criteria for patient consent regarding the use and disclosure of their data. With clear derivative regulations in place, healthcare practitioners, hospitals, and online healthcare service providers can understand and comply with their obligations to protect the privacy of patients' personal health data while maintaining efficient and technologically advanced medical practices. Consequently, these specific derivative regulations help maintain an appropriate balance between the application of technology in healthcare services and the protection of patients' personal data.

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