

Medical Record Digitization Policy: Overview of the Health Minister Regulation Number 24 of 2022

Kebijakan Digitalisasi Rekam Medis: Tinjauan terhadap Peraturan Menteri Kesehatan Nomor 24 Tahun 2022

Azmi Asyfia,1* Zaid,2 Devin Mahendika3, Maryani Setyowati4

^{1,} Universitas Muhammadiyah Bandung, Bandung, Indonesia
²Universitas Muhammadiyah Yogyakarta, Yogyakarta, Indonesia
³Universitas Andalas, Padang, Indonesia
⁴Universitas Dian Nuswantoro, Semarang, Indonesia
*e-mail: <u>asyfiaazmi89@gmail.com</u>

Abstract

Objective: This study aims to examine the Regulation of the Minister of Health Number 24 of 2022 concerning Medical Records, which regulates electronic medical records.

Methods: This research is juridical research with a statutory approach. Thus, this study only analyzes the rules and regulations related to legal or policy issues related to the digitization of medical records.

Results: The obligation of the Electronic Medical Record (EMR) in Indonesia has legal certainty with the ratification of the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records. This obligation has administrative consequences in the form of a written warning and/or recommendations for revocation or revocation of accreditation status for Health Service Facilities that commit violations. The provisions of this policy must go into effect no later than December 31, 2023.

Conclusion: Three new things are regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022: the electronic system of electronic medical records, activities for organizing electronic medical records, security, and protection of electronic medical record data.

Keywords: Electronic medical record, digitization, health service facilities.

	Submitted	Revised	Accepted
Article History	2023-02-28	2023-04-04	2023-04-07



54

Introduction

There is no doubt that information systems provide substantial assistance in improving the health care system.¹ The influence of information systems on the health system is quite significant. Health information systems are fast becoming essential to hospitals and other places that provide health services. Many developed countries are making significant changes to their institutions. They are spending a lot of money on better health care.² To achieve the goals of more advanced and better health services, the medical industry must first implement health information systems such as "hospital information systems, electronic medical records, mHealth, telemedicine, and primary health care information system" are among the information system innovations in the health system.¹ Electronic Medical Records (EMR) are no exception.²

Medical records are a reflection of the quality of medical services provided.³ Medical records have been widely used in developed and developing countries on a limited basis.⁴ However, the traditional (paper-based) medical record system is a waste of time (inefficient) and hinders providing the best care to patients. Traditional systems can cause problems such as not getting a good history, losing test results, and being unable to evaluate symptoms as well as possible.² Therefore, information systems in health then gave birth to innovations in medical records in the form of electronic medical records (EMR).

An electronic medical record (EMR) is "an electronic record of health-related information on an individual that physicians and authorized staff can create, collect, manage, and consult within a single health care organization."⁵ In essence, EMR is a digital (electronic) version of a medical record. Paper (traditional). Due to the many benefits and advantages of electronic systems in medical records, and also as a result of government regulations forcing facilities to follow meaningful use guidelines and improve patient care by increasing access to electronic documentation, electronic medical records, which are often called EMR, are being implemented in everywhere.⁶ Including in Indonesia.

In Indonesia, the government is now paying the most attention to how EMR is used. Because the growth of digital technology in society has led to the digitization of health services, which means that medical records must now be kept electronically. Therefore, the Government of Indonesia, through the Ministry of Health, has issued Regulation Of The Minister Of Health Of The Republic Of Indonesia Number 24 Of 2022, which regulates medical records (electronically).

Given that the Ministry of Health Regulation was only ratified once on August 31, 2022, very few have reviewed and discussed it. Moreover, the existing research on EMR has solely focused on evaluating its effectiveness,⁷ its usefulness,⁸ and analyzing the application of standard operating procedures⁹ to EMR alone. So far, no one has studied and discussed further the Minister of Health Regulation Number 24 of 2022. This study aims to fill this void. This research examines the Regulation of the Minister of Health Number 24 of 2022 concerning Medical Records.

Methods

Research Design

Based on the research objectives above, this research can be categorized into juridical research. So that this research is only limited to the norms that exist in laws and regulations.

Research Approach

This research uses only one approach, namely the statutory regulation approach. Therefore, this study only analyzes the rules and regulations related to legal or policy issues related to the digitization of medical records.

Data Resoruces

Because this research is juridical research, this research will only use two data sources in the form of primary and secondary data. Preliminary data are taken from relevant legal materials, namely the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records. The secondary data in this study were taken from materials that support the primary data, most of which were taken from reputable scientific journals.

Data analysis

Both descriptive and qualitative methods of analysis are utilized in this study. Because of this, the study uses qualitative data, which is described in a descriptive manner.

Results

EMR in Indonesia already has legal certainty with the ratification of the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records. The Regulation stipulates that "every Health Service Facility is required to maintain an Electronic Medical Record as referred to in Article 3 paragraph (1). Paragraph (2) continues that Health Service Facilities, as referred to in paragraph (1), consist of: a. independent practice locations for doctors, dentists, and/or other health workers; b. Public health center; c. clinic; d. hospital; e. pharmacy; f. health laboratory; g. hall; and h. Other Health Service Facilities are determined by the Minister.

Not only that, but the obligation to administer Electronic Medical Records also applies to Health Service Facilities that provide telemedicine services as stipulated in Article 4 paragraph (1). And for anyone who violates this obligation, the Minister, in carrying out guidance and supervision, can impose administrative sanctions on Health Service Facilities that contravene the provisions referred to in Article 3. (2) Imposition of administrative sanctions by the Minister as referred to in paragraph (1) implemented through the Director General. (3) The administrative sanctions, as referred to in paragraph (1), are written warning; and/or recommendations for revocation or revocation of accreditation status.

With the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records, the old Regulation, Regulation of the Minister of Health Number 269/MENKES/PER/III/2008 concerning Medical Records, is no longer valid. The reason is that it is no longer in accordance with scientific and technological advances, the community's need for health services, and the law. This research also later found three new things regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022, which will be mentioned and discussed further in the discussion below.

Discussion

According to Wahyu Andrianto, the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 seeks to provide a legal basis or legality for implementing electronic medical records. Three new things are regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022: the electronic system of electronic medical records, activities for organizing electronic medical records, and security and protection of electronic medical record data.¹⁸

First, the electronic system of electronic medical records

In Article 9, paragraph (1), it is stated that "Electronic Systems in the implementation of Electronic Medical Records can be in the form of Electronic Systems developed by the Ministry of Health, Health Service Facilities themselves, or Electronic System Operators through cooperation." Paragraph (2) then explains that "the operator of the Electronic System for Electronic Medical Records as referred to in paragraph (1) must be registered as an Electronic System Operator in the health sector at the ministry responsible for the field of communication and informatics in accordance with the provisions of laws and regulations."

Then Article 10 (1) states, "Electronic systems used in the administration of Electronic Medical Records must have compatibility and/or interoperability capabilities." The meaning of compatibility in the Electronic system used in the administration of Electronic Medical Records is "compatibility of one Electronic System with another Electronic System." As paragraph (2).

As for what is meant by interoperability in Electronic systems used in the administration of Electronic Medical Records is "the ability of different Electronic Systems to be able to work in an integrated way to communicate or exchange data with one or more other Electronic Systems, which use standard data exchange" as stipulated in described in paragraph (3). It's just that, in the next paragraph, it is explained further that interoperability must "refer to electronic system standards organized by the Ministry of Health in accordance with statutory provisions."

Second, the activity of organizing electronic medical records

Article 13 states that activities for organizing Electronic Medical Records consist of at least: a. Patient registration; b. distribution of Electronic Medical Record data; c. filling in clinical information; d. processing of Electronic Medical Record information, e., data input for financing claims; f. electronic medical record storage; g. electronic medical record quality assurance; and h. transfer of the contents of the Electronic Medical Record." The eight activities are pillars in the implementation of Electronic Medical Records.

The provisions for each of the aforementioned actions pertaining to the implementation of Electronic Medical Records are governed in future articles, beginning with Article 14 and continuing all the way up to Article 24.

Finally, the new thing that is regulated in Regulation of the Minister of Health Number 24 of 2022 is related to data protection and confidentiality of electronic medical records.

In Article 29 (1) states, "Electronic medical records must comply with the principles of data and information security, including a. secrecy; b. integrity; and c. availability." "Confidentiality, as referred to in paragraph (1) letter a, is a guarantee of data and information security from interference by internal and external parties who do not have access rights, so that the data and information contained in the Electronic Medical Record are protected for its use and distribution. (3) Integrity, as referred to in paragraph (1) letter b, is a guarantee for the accuracy of data and information contained in the Electronic medical Record, and changes to data may only be made by persons who

are given access rights to change. (4) Availability, as referred to in paragraph (1) letter c, is a guarantee that data and information in the Electronic Medical Record can be accessed and used by people who have access rights determined by the leadership of the Health Service Facility." Provisions related to data protection and confidentiality of electronic medical records are further regulated in subsequent Articles (Articles 30 to 31).

Apart from the three things above, Regulation of the Minister of Health Number 24 of 2022 concerning Medical Records also regulates several matters that are no less important. Among them are those related to the Disclosure of Medical Record Contents, Waiver of Rights to Medical Record Contents (Article 38), and Storage Period (Articles 39 to 40).

Then in CHAPTER III, in the second part, also contains things that are no less important, namely those relating to sanctions. Article 42, paragraph (1) to paragraph (3) states that "The Minister in carrying out guidance and supervision can impose administrative sanctions on Health Service Facilities that violate the provisions referred to in Article 3. (2) Imposition of administrative sanctions by the Minister as referred to in paragraph (1) implemented through the Director General. (3) The administrative sanctions referred to in paragraph (1) are a. written warning; and/or recommendations for revocation or revocation of accreditation status.

This is the discussion regarding regulatory provisions related to EMR obligations. Since promulgation in August 2022, "all Health Service Facilities must implement Electronic Medical Records in accordance with the provisions in this Ministerial Regulation no later than December 31, 2023," as stated in Article 45.

After legal certainty through this Regulation of Health Ministry, it does not mean that EMR will not have problems or problems going forward. It goes without saying that EMR is a very useful tool. Nonetheless, it remains imperfect, and there will be times when its use will be frustrating for both practitioners and patients (e.g., software failures, slow login times, and intermittent Internet connectivity).¹⁹ On the other hand, issues regarding security data, privacy,²⁰ as well as ethical issues may arise in the future. Therefore, starting from ministers, governors, and regents/mayors to provide guidance and supervision of the implementation of Electronic Medical Records in accordance with their respective authorities and the provisions of the laws and regulations as mandated in Article 41.

Conclusion

The policy regarding the obligation to digitize medical records has obtained legal certainty through the Regulation of the Minister of Health Number 24 of 2022 concerning Medical Records. Thus, the Regulation of the Minister of Health Number 269/MENKES/PER/III/2008 concerning Medical Records was revoked and no longer valid. Broadly speaking, three new things are regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022, namely the electronic system

of electronic medical records, activities for organizing electronic medical records, and security and protection of electronic medical record data.

While EMR is not perfect, there will be times when its use will be frustrating for both practitioners and patients (e.g., software failures, slow login times, and intermittent Internet connectivity). On the other hand, data security, privacy, and ethical issues might arise in the future. Therefore, starting from the ministers, governors, and regents/mayors to provide guidance and supervision of the implementation of Electronic Medical Records in accordance with their respective authorities and the provisions of laws and regulations.

References

1. Madjido M, Espressivo A, Maula AW, Fuad A, Hasanbasri M. Health Information System Research Situation in Indonesia: A Bibliometric Analysis. *Procedia Comput Sci.* 2019;161:781-787. doi:10.1016/J.PROCS.2019.11.183

2. Mijin N, Jang H, Choi B, Khongorzul G. Attitude toward the use of electronic medical record systems: Exploring moderating effects of self-image. *Inf Dev.* 2019;35(1):67-79.

doi:10.1177/02666666917729730/ASSET/IMAGES/LARGE/10.1177_026666669177297 30-FIG1.JPEG

3. Ismawati NDS, Supriyanto S, Haksama S, Hadi C. The influence of knowledge and perceptions of doctors on the quality of medical records. *J Public health Res.* 2021;10(2):2228. doi:10.4081/JPHR.2021.2228

4. Harahap NC, Handayani PW, Hidayanto AN. Barriers and facilitators of personal health record adoption in Indonesia: Health facilities' perspectives. *Int J Med Inform*. 2022;162:104750. doi:10.1016/J.IJMEDINF.2022.104750

5. Bhyat R, Gibson C, Hayward R, et al. Implementing Informatics Competencies in Undergraduate Medical Education: A National-Level "Train the Trainer" Initiative. *Heal Prof Educ Age Clin Inf Syst Mob Comput Soc Networks*. Published online January 1, 2017:347-370. doi:10.1016/B978-0-12-805362-1.00017-6

6. Gray DF. Electronic Medical Record Considerations. In: Visser LS, Montejano AS, eds. *Fast Facts for the Triage Nurse*. Second Edi. Springer Publishing Company; 2018. doi:10.1891/9780826148513.0013

7. Marpaung Y, Taifur WD, Syah NA, Yusuf Y. Application of Failure Mode and Effects Analysis in Managing Medical Records for Accuracy of INA-CBGs Health Insurance Claims in a Tertiary Hospital in Indonesia. *Perspect Heal Inf Manag.* 2022;19(3).

8. Manoppo IA, Tutik R, Hariyati S. Usefulness of Electronic Medical Records Technology for Nurse Managers: A Literature Review. *Str J Ilm Kesehat*. 2021;10(2):1509-1517. doi:10.30994/SJIK.V10I2.856

9. Rizki F, Noor NB, Adellia UAM, Irwandy. Analysis of Standard Operational Procedures implementation on medical records completion at Stella Maris Hospital in Makassar, Indonesia. *Enfermería Clínica*. 2020;30:35-39. doi:10.1016/J.ENFCLI.2019.07.023

10. Babbott S, Manwell LB, Brown R, et al. Electronic medical records and physician

stress in primary care: Results from the MEMO Study. J Am Med Informatics Assoc. 2014;21(E2):e100-e106. doi:10.1136/AMIAJNL-2013-

001875/3/AMIAJNL2013001875F02.JPEG

11. Liu J, Luo L, Zhang R, Huang T. Patient satisfaction with electronic medical/health record: a systematic review. *Scand J Caring Sci.* 2013;27(4):785-791. doi:10.1111/SCS.12015

12. Paré G, Raymond L, de Guinea AO, et al. Barriers to organizational adoption of EMR systems in family physician practices: a mixed-methods study in Canada. *Int J Med Inform.* 2014;83(8):548-558. doi:10.1016/J.IJMEDINF.2014.06.003

13. Fritz F, Tilahun B, Dugas M. Success criteria for electronic medical record implementations in low-resource settings: a systematic review. *J Am Med Inform Assoc*. 2015;22(2):479-488. doi:10.1093/JAMIA/OCU038

14. Aguirre RR, Suarez O, Fuentes M, Sanchez-Gonzalez MA. Electronic Health Record Implementation: A Review of Resources and Tools. *Cureus*. 2019;11(9). doi:10.7759/CUREUS.5649

15. Nguyen L, Bellucci E, Nguyen LT. Electronic health records implementation: an evaluation of information system impact and contingency factors. *Int J Med Inform*. 2014;83(11):779-796. doi:10.1016/J.IJMEDINF.2014.06.011

16. Sher ML, Talley PC, Yang CW, Kuo KM. Compliance With Electronic Medical Records Privacy Policy: An Empirical Investigation of Hospital Information Technology Staff. *Inq A J Med Care Organ Provis Financ*. 2017;54. doi:10.1177/0046958017711759

17. Sharma S, Munshi A, Sharma V. Time to Educate Physicians and Hospital Staff in Electronic Medical Records for Precision Medicine. *Prog Challenges Precis Med.* Published online January 1, 2017:217-232. doi:10.1016/B978-0-12-809411-2.00012-X

18. Andrianto W. Catatan Sederhana untuk Permenkes No. 24 Tahun 2022 tentang Rekam Medis. Published 2022. Accessed February 26, 2023. https://law.ui.ac.id/catatan-sederhana-untuk-permenkes-no-24-tahun-2022-tentang-rekam-medis-oleh-wahyu-andrianto-s-h-m-h/

19. Alkureishi ML, Lee WW, Frankel RM. Patient-Centered Technology Use: Best Practices and Curricular Strategies. *Heal Prof Educ Age Clin Inf Syst Mob Comput Soc Networks*. Published online January 1, 2017:201-232. doi:10.1016/B978-0-12-805362-1.00010-3

20. Keshta I, Odeh A. Security and privacy of electronic health records: Concerns and challenges. *Egypt Informatics J.* 2021;22(2):177-183. doi:10.1016/J.EIJ.2020.07.003