The Legal Standing of Electronic Medical Records as Digital Evidence in Proving Criminal Medical Malpractice by Healthcare Professionals

Faisal Lutfi, Sumarno, Mhd. Azhali Siregar

Abstract

The transformation of healthcare service systems toward the use of electronic medical records has brought significant juridical consequences in the evidentiary process of criminal cases involving medical malpractice by healthcare professionals. Electronic medical records no longer function merely as administrative documents, but rather hold a strategic position as digital evidence with the potential to determine criminal liability. This study aims to analyze the legal standing of electronic medical records as digital evidence in proving criminal medical malpractice by healthcare professionals, as well as to examine their juridical implications for criminal responsibility in the digital era. The research employs a normative legal research method with statutory and conceptual approaches. The findings indicate that electronic medical records may be recognized as valid legal evidence insofar as they fulfill the requirements of authenticity, integrity, and system reliability in accordance with Indonesian evidentiary law. Furthermore, electronic medical records influence the assessment of criminal fault among healthcare professionals by demanding stricter standards of authentication and data protection. These findings underscore the importance of strengthening regulatory frameworks and enhancing the capacity of law enforcement authorities in evaluating digital evidence within the healthcare sector.

Keywords: Electronic Medical Records; Digital Evidence; Medical Malpractice; Criminal Evidence; Criminal Liability

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Introduction

The development of information technology has compelled a major transformation in healthcare documentation systems, shifting from conventional formats to Electronic Medical Records (EMRs). EMRs are designed to accelerate patient data access, enhance service coordination, and provide comprehensive digital medical histories. This transition not only offers operational advantages but also introduces new legal challenges, particularly in the evidentiary process of criminal cases involving medical malpractice by healthcare professionals.

EMRs have the potential to serve as crucial digital evidence in legal practice for establishing elements of fault or negligence committed by healthcare professionals in the provision of medical services. The validity and legal admissibility of EMRs as evidence must satisfy both formal and material requirements under the Information and Electronic Transactions Law, as well as the evidentiary rules governing criminal procedure. Nevertheless, uncertainties persist regarding standards of authentication, data integrity, and verification mechanisms for EMRs in criminal courts. These issues pose significant challenges for law enforcement authorities in assessing and accepting digital evidence derived from electronic systems in a lawful and equitable manner.

The implementation of EMRs has also shifted the paradigm of legal responsibility for healthcare professionals. On one hand, EMRs may strengthen proof of professional negligence leading to criminal malpractice. On the other hand, technical limitations and electronic data governance policies often create broad interpretative discretion for judges in determining the evidentiary value of EMRs during criminal proceedings. This condition necessitates a more specific and critical examination of the legal standing of EMRs as digital evidence within the criminal evidentiary system, as well as their implications for the criminal liability of healthcare professionals in malpractice cases in the digital era.

This research is significant as it provides a juridical analysis focused on criminal proof based on electronic evidence, distinguishing it from general studies on EMRs that are commonly discussed within civil law or medical ethics literature. This focus is also aligned with the growing demand for specialized criminal law enforcement in addressing violations of healthcare services in an increasingly digitalized environment.

Accordingly, this study is conducted to address several fundamental legal issues concerning the use of Electronic Medical Records (EMRs) as digital evidence in criminal malpractice cases involving healthcare professionals. The central problems examined in this research include the legal standing of EMRs within the criminal evidentiary system, the standards required for their authentication, integrity, and reliability, as well as the juridical implications of their use for establishing criminal liability in medical malpractice cases. This study aims to analyze the admissibility and evidentiary value of EMRs as digital evidence under Indonesian criminal law, to assess their influence on judicial evaluation of criminal fault among healthcare professionals, and to formulate a coherent legal framework that supports legal certainty, fairness, and accountability in the enforcement of criminal law within the healthcare sector in the digital era. By focusing on these issues, this research contributes to the development of criminal evidentiary law in response to technological advancements in healthcare services.

Research Methodology

This study employs a normative legal research method using statutory and conceptual approaches. The statutory approach is applied to examine legal provisions governing electronic medical records, digital evidence, and the criminal liability of healthcare professionals in medical malpractice cases. The conceptual approach is utilized to analyze the concepts of digital evidence, criminal proof, and doctrines of criminal liability within the framework of health law. Primary legal materials consist of statutory regulations, relevant court decisions, and legal instruments related to information technology in the healthcare sector. Secondary legal

materials include scholarly journals, legal textbooks, and research publications from the past five years addressing medical malpractice, electronic medical records, and criminal evidentiary processes. Data analysis is conducted qualitatively through deductive reasoning to produce systematic and well-argued conclusions.

Results

The Legal Standing of Electronic Medical Records as Digital Evidence in Proving Criminal Medical Malpractice by Healthcare Professionals

The legal standing of Electronic Medical Records (EMRs) as digital evidence plays a strategic role in the evidentiary process of criminal medical malpractice cases involving healthcare professionals, as EMRs contain comprehensive documentation of medical actions, diagnoses, and services rendered. From a juridical perspective, EMRs may be recognized as valid electronic evidence in court proceedings provided that they meet the criteria of authenticity, integrity, and legal accountability in accordance with Indonesian evidentiary law, including the provisions of the Information and Electronic Transactions Law. This study indicates that EMRs hold a legitimate position as admissible evidence within the judicial system when they fulfill the formal and material requirements stipulated under electronic evidentiary regulations. Ensuring authenticity and data integrity in EMRs requires robust information security systems, audit trails, and authentication mechanisms capable of guaranteeing that the data have not been altered since their initial creation. Under these conditions, EMRs are no longer merely administrative records but possess relevant and persuasive probative value in the examination of criminal medical malpractice cases.

In the context of criminal law, EMRs function as digital evidence that may assist law enforcement authorities in uncovering elements of fault or negligence committed by healthcare professionals in medical practice. As digital evidence, EMRs provide objective data concerning the sequence of medical services, thereby enabling a more accurate assessment of professional conduct. Nevertheless, legal challenges persist due to the incomplete harmonization between the Information and Electronic Transactions Law and the Indonesian Criminal Procedure Code (KUHAP) in the acceptance and evaluation of electronic evidence. Consequently, heightened caution is required in the authentication and verification of electronic data to ensure their effective use in criminal proof.

Several juridical studies further explain that EMRs are not merely administrative documents but constitute electronic evidence with substantial relevance in malpractice disputes, provided that their authenticity can be established before the court. The legality of EMRs as electronic evidence has been reinforced by recent regulations that provide a legal basis for the recognition of electronic data in judicial proceedings, enabling EMRs to serve as substantive evidence either supporting or refuting allegations of malpractice. Nevertheless, the use of EMRs as digital evidence remains subject to challenges related to personal data protection, information security systems, and technical standards for electronic data storage. The admissibility of EMRs as electronic evidence is highly dependent on accurate data storage mechanisms, robust authentication procedures, and the availability of clear regulations governing electronic evidence standards in criminal trials. This condition necessitates the involvement of law enforcement authorities who possess adequate understanding of digital data characteristics and electronic evidentiary techniques in order to properly assess the probative value of EMRs in criminal medical malpractice cases.

Accordingly, from a juridical standpoint, EMRs hold a strong legal position as digital evidence in proving criminal medical malpractice by healthcare professionals, provided that they comply with the legal requirements governing electronic evidence and applicable technical authentication standards. The contribution of EMRs to criminal proof also reflects the evolution of evidentiary systems in the digital era, in which electronic evidence has become increasingly crucial for presenting objective facts within judicial proceedings.

Juridical Implications of Electronic Medical Records for the Criminal Liability of Healthcare Professionals in Medical Malpractice Cases in the Digital Era

The implementation of Electronic Medical Records (EMRs) carries significant juridical implications for the criminal liability of healthcare professionals in medical malpractice cases, as EMRs function not only as administrative documentation but also as digital evidence capable of determining the factual validity of malpractice allegations in court proceedings. Juridical studies indicate that well-structured EMRs play a strategic role in criminal proof by preserving objective evidence of medical actions, thereby holding strong relevance in assessing elements of fault or negligence in medical practice. However, the admissibility of EMRs as electronic evidence in criminal courts requires rigorous processes of authentication, data integrity assurance, and system reliability to ensure that such data are legally valid and accountable.

From a juridical standpoint, EMRs that comply with technical standardization and statutory regulations have been recognized as admissible evidence in judicial proceedings, including criminal malpractice cases, thereby assisting judges in evaluating whether healthcare professionals' actions conform to professional standards or constitute criminally punishable professional misconduct. This recognition is supported by studies demonstrating that medical records, including their electronic forms, constitute essential evidence whose authenticity and confidentiality must be safeguarded in accordance with applicable legal provisions to strengthen their probative value in judicial examinations.

The juridical implications of EMR usage also present significant challenges in determining the criminal liability of healthcare professionals, as electronic data require law enforcement authorities to possess an understanding of technical aspects such as timestamp validity, electronic data structures, and information security systems that regulate data access and modification. Ambiguities or weaknesses in authentication and verification mechanisms may reduce the evidentiary weight of EMRs in court, thereby resulting in legal uncertainty when determining criminal responsibility for malpractice.

The protection of patient data recorded in EMRs also forms an integral part of the legal responsibility of healthcare professionals, as the obligation to maintain confidentiality and data security constitutes a core component of professional healthcare standards. Violations of these principles may not only undermine the credibility of EMRs as evidence but also give rise to criminal and administrative consequences for healthcare professionals or institutions that fail to protect patient data in accordance with data protection and privacy regulations.

Overall, the juridical implications of EMRs for the criminal liability of healthcare professionals encompass more comprehensive evidentiary considerations, including authentication verification, data integrity assessment, and legal protection of patients' rights, thereby contributing to a criminal justice system that is more responsive to digital developments. This approach enables judges and law enforcement authorities to address malpractice cases in a fair, accurate, and evidence-based manner grounded in reliable digital proof. At the same time, it underscores the importance of enhancing the capacity of law enforcement authorities to understand the characteristics and evidentiary value of electronic evidence in the healthcare sector. Adequate comprehension of EMRs as digital evidence will reduce the risk of errors in assessing criminal liability and strengthen legal certainty for both healthcare professionals and patients in malpractice cases in the digital era.

Conclusion

The legal standing of Electronic Medical Records (EMRs) as digital evidence in proving criminal medical malpractice by healthcare professionals possesses strong juridical legitimacy, provided that they meet the requirements of authenticity, integrity, and system reliability in accordance with Indonesian evidentiary law. EMRs function as objective evidence capable of comprehensively recording medical actions, thereby holding significant probative value in revealing elements of fault or negligence in criminal medical malpractice cases. The juridical implications of EMRs for the criminal liability of healthcare professionals demonstrate a shift in the evidentiary paradigm toward the use of more complex and structured digital evidence.

EMRs influence not only the assessment of criminal conduct and culpability but also necessitate serious attention to data authentication, system security, and the protection of patients' rights to ensure that criminal liability is enforced fairly, accurately, and with legal certainty in the digital era.

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