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Electronic Medical Records as Evidence in Medical Malpractice Litigation: Challenges to Patient Access and Evidentiary Equality

Retno Widyowati*
Universitas Sebelas Maret, Surakarta, Indonesia
retnowidyowati@gmail.com

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*Corresponding Author

Abstract

Electronic medical records have become essential sources of evidence in disputes concerning the quality and legality of medical treatment. In medical malpractice litigation, however, patients may face significant difficulties obtaining, interpreting, and presenting electronic medical records that are primarily controlled by healthcare institutions. This article examines the evidentiary position of electronic medical records in Indonesian medical malpractice disputes, with particular emphasis on patient access and equality of arms between patients and healthcare providers. Using normative legal research, the study analyzes evidentiary principles, medical record regulations, patient rights, and procedural aspects of medical dispute resolution. The analysis indicates that electronic records possess substantial evidentiary value because they document clinical decisions, treatment chronology, prescriptions, and professional interactions. Nevertheless, unequal access to records, uncertainty regarding their authenticity and integrity, and patients' limited technical understanding may create structural disadvantages. The article argues that evidentiary fairness requires stronger mechanisms for patient access, preservation, authentication, and disclosure of electronic medical records. It proposes procedural safeguards that would enable patients to obtain relevant records without compromising legitimate confidentiality interests. Strengthening the evidentiary status and accessibility of electronic medical records would contribute to more balanced medical dispute resolution and enhance accountability within Indonesia's healthcare system.

[*Rekam medis elektronik telah menjadi sumber bukti penting dalam sengketa mengenai kualitas dan legalitas perawatan medis. Namun, dalam litigasi malpraktik medis, pasien mungkin menghadapi kesulitan signifikan dalam memperoleh, menafsirkan, dan menyajikan rekam medis elektronik yang sebagian besar dikendalikan oleh lembaga perawatan kesehatan. Artikel ini mengkaji posisi pembuktian rekam medis elektronik dalam sengketa*

malpraktik medis di Indonesia, dengan penekanan khusus pada akses pasien dan kesetaraan hak antara pasien dan penyedia layanan kesehatan. Dengan menggunakan penelitian hukum normatif, studi ini menganalisis prinsip-prinsip pembuktian, peraturan rekam medis, hak pasien, dan aspek prosedural penyelesaian sengketa medis. Analisis menunjukkan bahwa rekam medis elektronik memiliki nilai pembuktian yang substansial karena mendokumentasikan keputusan klinis, kronologi perawatan, resep, dan interaksi profesional. Meskipun demikian, akses yang tidak setara terhadap rekam medis, ketidakpastian mengenai keaslian dan integritasnya, dan pemahaman teknis pasien yang terbatas dapat menciptakan kerugian struktural. Artikel ini berpendapat bahwa keadilan pembuktian membutuhkan mekanisme yang lebih kuat untuk akses pasien, pelestarian, otentikasi, dan pengungkapan rekam medis elektronik. Artikel ini mengusulkan perlindungan prosedural yang memungkinkan pasien untuk memperoleh rekam medis yang relevan tanpa mengorbankan kepentingan kerahasiaan yang sah. Penguatan status pembuktian dan aksesibilitas rekam medis elektronik akan berkontribusi pada penyelesaian sengketa medis yang lebih seimbang dan meningkatkan akuntabilitas dalam sistem perawatan kesehatan Indonesia.]

Keywords: Electronic medical records, medical malpractice, evidence, patient rights, procedural justice

Introduction

The digitalization of healthcare has transformed the medical record from a predominantly documentary instrument into a complex information system containing clinical, administrative, technical, and transactional information. Electronic medical records are now capable of documenting not only diagnoses and treatment but also timestamps, medication orders, clinical communications, amendments, system interactions, and user activity. This transformation has significant implications for medical malpractice litigation because the medical record frequently constitutes the principal documentary basis from which courts, experts, and litigants reconstruct what happened during the delivery of healthcare. Mangalmurti, Murtagh, and Mello observe that electronic health records alter the legal environment of medical liability because computerized ordering, clinical decision support, electronic communication, and documentation practices introduce both opportunities and new sources of liability risk (2010). Research examining malpractice claims has likewise demonstrated that electronic systems may become relevant to medication errors, diagnostic failures, treatment complications, and other disputed clinical events (Graber et al. 2019).

The evidentiary significance of electronic medical records, however, cannot be separated from the institutional structure in which those records are produced and controlled. Healthcare institutions ordinarily determine how electronic records

are created, stored, retrieved, exported, corrected, archived, and disclosed. Patients may have a legal interest in information concerning their own treatment without possessing equivalent technical or practical control over the underlying electronic system. This distinction becomes especially important in malpractice disputes because the claimant may need precisely the information controlled by the healthcare provider to establish the chronology and circumstances of the alleged negligent act. International research shows that patient access to electronic health records remains fragmented across jurisdictions, even where general rights of access are formally recognized (Essйn et al. 2018). Systematic reviews similarly demonstrate that patient access can improve engagement, communication, understanding, and participation in healthcare, although implementation and accessibility remain uneven (Tapuria et al. 2021; D'Costa, Kuhn, and Fritz 2020).

This problem creates what may be described as evidentiary inequality. The concept differs from formal equality because the parties to a medical dispute may possess theoretically equal procedural status while having radically different capacities to obtain, interpret, authenticate, and challenge the evidence. A patient who receives only a printed or exported version of an electronic medical record may be unable to determine whether entries were subsequently amended, whether relevant audit information exists, or whether portions of the record have been omitted. Conversely, a healthcare institution may possess technical information capable of answering these questions but may not automatically disclose it. The issue is therefore not simply whether an electronic record is admissible but whether the parties have a realistic opportunity to examine its reliability. Research on malpractice and electronic records demonstrates that the evidentiary and liability implications of EHRs are complex and cannot be reduced to the assumption that digitization automatically improves legal accountability (Paterick et al. 2018; Victoroff et al. 2013).

The Indonesian legal environment provides an important context for examining this issue. Minister of Health Regulation Number 24 of 2022 concerning Medical Records requires healthcare facilities to implement electronic medical records and expressly identifies legal certainty, security, confidentiality, integrity, and availability of medical-record data as regulatory objectives. Law Number 27 of 2022 concerning Personal Data Protection also establishes a broader framework governing personal-data processing, including the rights of data subjects and obligations imposed upon data controllers and processors. These instruments provide important foundations, but their existence does not necessarily answer the procedural questions arising when electronic medical records become contested evidence in malpractice litigation. The central issue is consequently whether existing Indonesian regulation sufficiently protects patients' practical capacity to access and challenge electronic evidence when the healthcare institution controls the technological environment from which that evidence originates.

This article addresses that problem through three interconnected research questions. First, what is the evidentiary position of electronic medical records in medical malpractice litigation? Second, how does institutional control over electronic medical records affect patient access and equality of arms? Third, what procedural safeguards are necessary to ensure that electronic medical records can perform their evidentiary function without producing structural disadvantage for patients? The article argues that electronic medical records should not be understood merely as documents satisfying formal requirements of electronic evidence. Their legal reliability depends upon access, authenticity, integrity, completeness, preservation, and interpretability. The principal contribution of this article is therefore the development of an evidentiary equality framework that connects patient access rights with the procedural reliability of electronic medical records in medical malpractice litigation.

This study employs normative juridical research, which is appropriate for examining the legal status and evidentiary implications of electronic medical records through legal norms, principles, concepts, and scholarly interpretations. The research applies a statutory approach by examining Indonesian legislation governing medical records, healthcare services, electronic information, evidence, and personal-data protection. Particular attention is given to Minister of Health Regulation Number 24 of 2022 concerning Medical Records, Law Number 27 of 2022 concerning Personal Data Protection, Law Number 17 of 2023 concerning Health, and the legislation governing electronic information and transactions. The analysis also uses a conceptual approach to examine the relationship between medical confidentiality, patient rights, evidentiary fairness, authentication, integrity, and equality of arms. Because Indonesian regulation does not comprehensively resolve every technical issue associated with electronic medical-record evidence, comparative scholarly literature is used to identify relevant principles and regulatory approaches from other jurisdictions.

The research materials consist of primary and secondary legal materials. Primary materials include Indonesian statutes and ministerial regulations relevant to medical records, health services, electronic information, and personal-data protection. Secondary materials consist principally of peer-reviewed journal articles addressing electronic health records, patient access, medical malpractice, electronic evidence, audit logs, documentation integrity, and patient engagement. The literature was selected on the basis of relevance to the research questions, academic publication status, and bibliographic verifiability, with the literature cutoff placed before 2026. The analytical process proceeds through legal interpretation and normative synthesis rather than empirical measurement. International empirical and systematic-review findings are not treated as direct evidence of Indonesian conditions; instead, they are used comparatively to identify recurring technological and procedural problems that Indonesian law must address. This methodological distinction is important because the article seeks to construct

a normative framework rather than claim that foreign empirical findings automatically describe Indonesian malpractice litigation.

The Evidentiary Position of Electronic Medical Records in Medical Malpractice Litigation

Electronic medical records possess substantial evidentiary value because they provide a structured account of the medical encounter and may preserve information unavailable in conventional paper documentation. In malpractice litigation, the record can establish the sequence of clinical events, identify healthcare professionals involved in treatment, document diagnostic and therapeutic decisions, and demonstrate whether particular information was available to clinicians at relevant moments. Mangalmurti, Murtagh, and Mello explain that EHR systems affect medical liability by changing how information is generated and communicated during clinical care (2010). Empirical research has also examined the relationship between EHR adoption and malpractice claims, although the results do not establish a simple causal relationship. Virapongse et al. found an apparent association between EHR adoption and paid malpractice claims, but the relationship was reduced and became statistically insignificant after adjustment for relevant characteristics (2008). Victoroff et al. subsequently found no significant difference in liability-claim rates associated with EHR adoption in a longitudinal Colorado study (2013). These findings demonstrate that EHRs should be treated as evidentiary infrastructures rather than presumed mechanisms for either increasing or reducing liability.

The evidentiary importance of electronic records is reinforced by the fact that malpractice disputes frequently concern events that occurred over a sequence of time rather than at a single identifiable moment. A patient may allege that a diagnosis was delayed, an abnormal test result was overlooked, a medication was incorrectly prescribed, or a warning sign was not communicated. In each situation, the court must reconstruct what information existed, who had access to it, what decisions were made, and when those decisions occurred. Electronic records can provide information relevant to each of these questions. Graber et al. found that EHR-related factors appeared in malpractice claims involving medication, diagnosis, and treatment complications, demonstrating that digital systems can become directly relevant to the causal reconstruction of alleged harm (2019). The significance of the record therefore extends beyond its substantive clinical content. Its temporal and technical characteristics may determine whether the record can accurately reconstruct the circumstances surrounding the alleged professional error.

The Indonesian framework is compatible with this understanding because Permenkes No. 24 of 2022 defines medical records broadly as documents containing patient identity, examination, treatment, procedures, and other services provided to patients, while requiring healthcare facilities to implement electronic

medical records. The regulation expressly identifies security, confidentiality, integrity, and availability as objectives of medical-record management. These principles are particularly significant when the record becomes evidence. Integrity is not merely a technical requirement for information security; it is also an evidentiary requirement because the court must be able to rely upon the record as a faithful representation of the clinical event. Availability likewise acquires procedural meaning when the patient requires the record to investigate a possible malpractice claim. Consequently, the regulatory objectives governing electronic medical records should be interpreted in a manner that recognizes their dual function as instruments of clinical care and potential evidence of professional accountability.

The distinction between admissibility and evidentiary weight is therefore critical. Formal recognition of electronic information as evidence does not mean that every electronic medical record should automatically receive decisive probative value. A court may admit an electronic record while still questioning whether it is complete, contemporaneous, authentic, or properly contextualized. Paterick et al. emphasize that electronic documentation has changed the medicolegal environment by creating new liability risks associated with electronic information systems and documentation practices (2018). The issue is particularly important where a healthcare institution produces an extracted record after litigation has commenced. The patient may be able to prove that the document originates from the institution but still lack the technical means to establish whether the extract contains all relevant information. Evidentiary reliability therefore requires a framework capable of examining not only the document itself but also the processes through which the document was generated, maintained, and disclosed.

Electronic medical records may also contain information beyond the visible clinical note. Audit logs can record user activity, access events, modifications, and other interactions with the electronic system. Rule, Chiang, and Hribar's systematic review demonstrates that EHR audit logs have been increasingly used to study clinical activity and can provide information that cannot be derived from the substantive clinical record alone (2020). Similarly, literature concerning malpractice claims has emphasized the relevance of audit logs when questions arise concerning who participated in care, what information was available, when actions occurred, and whether records were altered or otherwise processed (Graber et al. 2019). The legal implication is that an electronic medical record should not necessarily be equated with the visible document exported by the healthcare institution. Where the integrity or chronology of the record is contested, the underlying technical information may become necessary to evaluate the evidentiary reliability of the record itself.

Patient Access and Structural Inequality in Medical Evidence

The principal procedural difficulty surrounding electronic medical records is that the patient may be the subject of the information without controlling the information system. Healthcare institutions generally possess the technical infrastructure, system credentials, administrative authority, and expertise necessary to retrieve electronic records. Patients frequently depend upon institutional procedures to obtain copies or summaries of their information. This distinction produces a structural asymmetry that becomes particularly consequential when the institution is itself the defendant or potential defendant in a malpractice dispute. Essйn et al. found that although patients in the jurisdictions studied generally possessed some form of right to access their medical data, the scope and technical implementation of access varied considerably across countries (2018). The existence of a formal right therefore does not guarantee continuous or complete access. For malpractice litigation, this distinction is crucial because a limited right to receive information may not provide sufficient material for independently evaluating the circumstances of alleged negligence.

Patient-access research provides substantial support for treating access to medical records as a component of patient participation rather than merely an administrative privilege. Ross and Lin's review found that facilitating access can produce benefits in communication and patient involvement, while subsequent research has examined the effects of giving patients direct electronic access to clinical documentation (Ross and Lin 2003). Delbanco et al.'s OpenNotes study demonstrated that patients who were invited to read their doctors' notes reported greater understanding and preparedness concerning their care (2012). Wolff et al. likewise found that access to clinicians' notes was associated with improved communication and patient confidence in managing healthcare (2017). These findings are not themselves evidence of malpractice liability, but they support a broader normative proposition: meaningful access to medical information increases the patient's ability to understand and evaluate the healthcare process. That capacity becomes particularly valuable when the quality or legality of treatment is subsequently disputed.

access and procedural justice becomes stronger when the patient must decide whether to initiate a malpractice claim. A patient cannot reasonably assess whether an adverse medical outcome reflects negligence, an unavoidable complication, or a medically appropriate decision without sufficient information about the treatment process. Limited access may therefore affect not only the presentation of evidence but also the initial ability to formulate a legally and medically credible claim. Systematic reviews indicate that access to electronic records may improve patients' understanding, engagement, communication, and ability to identify problems in their care (Tapuria et al. 2021; Neves et al. 2020). Dendere et al. similarly identify information access and communication as important facilitators of patient engagement with electronic medical records (2019). Accordingly, patient access

should be understood as part of the infrastructure through which a patient can exercise substantive and procedural autonomy, rather than simply as an optional convenience provided by healthcare institutions.

At the same time, unrestricted access would create legitimate concerns concerning third-party confidentiality, security, and inappropriate disclosure. Electronic medical records may contain information concerning family members, other healthcare professionals, or individuals whose information has been incorporated into the patient's record. Patient access must therefore be reconciled with confidentiality obligations and personal-data protection. The appropriate legal response is not to deny access but to apply proportionality. Information directly concerning the patient's own treatment should generally be accessible, while unrelated third-party information may be redacted where necessary. The international literature shows that access regimes differ in the scope of information made available and the technical mechanisms through which access occurs (Essӳn et al. 2018; D'Costa, Kuhn, and Fritz 2020). This comparative evidence supports an Indonesian model in which access is meaningful but controlled, allowing patients to obtain information necessary for healthcare participation and legal accountability without converting patient rights into unrestricted disclosure of all information held by a healthcare institution.

Indonesian regulation should therefore be interpreted in light of the difference between access to information and access to evidence. A patient who receives a clinical summary may technically possess information concerning treatment but may still lack evidence necessary to challenge the completeness or authenticity of the institutional account. In a malpractice dispute, the distinction can be decisive. If the healthcare provider controls the original electronic system, relevant metadata, audit logs, amendment histories, and preservation mechanisms, the patient may remain dependent upon the defendant to reveal evidence that could potentially support the claim. This creates an evidentiary asymmetry that formal equality of litigating parties cannot adequately resolve. The appropriate objective should consequently be to ensure that patients can obtain relevant records in a form sufficiently complete and technically reliable to permit meaningful legal and expert scrutiny.

Authenticity, Integrity, Completeness, and Preservation of Electronic Medical Records

Authenticity and integrity are fundamental to the evidentiary value of electronic medical records because digital information can be created, modified, copied, exported, and reformatted through processes that may not be visible in the final document. Authenticity concerns whether the record genuinely originated from the relevant healthcare institution or system and can be attributed to the person or process identified as its source. Integrity concerns whether the information has remained sufficiently complete and reliable or whether subsequent modifications

undermine its evidentiary meaning. These concepts should not be conflated. A record may be authentic in the sense that it genuinely originates from a hospital system while still raising questions about whether it contains all relevant entries or whether particular information was subsequently amended. This distinction is especially significant in malpractice litigation because the timing and sequence of documentation may influence whether a healthcare professional's conduct is considered reasonable in the circumstances.

Metadata and audit logs can provide important information for resolving these questions. Rule, Chiang, and Hribar's review identifies EHR audit logs as sources capable of documenting user interactions with electronic systems and reconstructing aspects of clinical activity (2020). Such logs may assist in determining when a user accessed a record, whether an entry was modified, and how users interacted with the system. The relevance of this information becomes particularly apparent where the parties dispute whether documentation was contemporaneous or retrospective. A visible clinical note may state that a particular assessment occurred at a certain time, while system-level information may provide evidence concerning when the entry was actually created or modified. The legal significance of metadata therefore lies in its capacity to test the reliability of the narrative presented by the substantive record rather than merely supplementing that narrative with technical detail.

The integrity of electronic medical records may also be affected by ordinary documentation practices such as copy-and-paste. O'Donnell et al. found that copy-and-paste practices were widely used by physicians and generated concerns regarding documentation accuracy (2009). Tsou et al.'s systematic review subsequently identified risks including propagation of outdated information, internal inconsistencies, excessive documentation, and information being copied into an incorrect record (2017). These findings demonstrate that digital records should not automatically be treated as inherently more accurate than paper records. The technological environment can increase both the volume and persistence of documentation while simultaneously creating new mechanisms for error propagation. In litigation, a lengthy record may therefore appear comprehensive while containing duplicated or outdated information. Courts and experts must consequently distinguish between the quantity of information contained in an electronic record and its actual evidentiary reliability.

Completeness is equally important because an electronic medical record presented to a court may represent only an extracted portion of the underlying information environment. Healthcare systems can contain clinical notes, medication orders, laboratory results, diagnostic images, messages, amendments, access histories, and system-generated information. A selected export may omit information that changes the interpretation of the visible clinical narrative. The problem is not necessarily evidence of intentional concealment; electronic systems are often designed to present information according to particular workflows or export functions. Nevertheless, when the institution controlling the system

produces the evidentiary record, the court should recognize the possibility that the disclosed material may not encompass all information relevant to the disputed event. The patient should therefore have a procedural mechanism for requesting additional information when a specific and reasonable basis exists to question completeness.

Preservation is particularly important because electronic evidence may be affected by routine technical processes. Information may be archived, overwritten, migrated to another system, or otherwise transformed as part of ordinary information-technology operations. The obligation to preserve relevant evidence should therefore arise when litigation is reasonably foreseeable rather than only after a formal claim has been filed. Such an approach would reduce the risk that important information disappears before the patient has sufficient knowledge to identify its evidentiary significance. A preservation obligation should not require indefinite retention of every piece of technical information. Instead, it should require healthcare institutions to take reasonable steps to preserve records and related technical information that are materially connected to a foreseeable dispute. This principle would align the technological realities of electronic recordkeeping with conventional evidentiary principles concerning the preservation of potentially relevant evidence.

A proportional authentication model is consequently preferable to an approach that places the entire technical burden upon the patient. Routine electronic medical records maintained through regulated systems should ordinarily receive an initial presumption of reliability when their provenance is adequately established. If the patient raises a concrete and credible challenge concerning modification, chronology, incompleteness, or system integrity, the burden should shift toward requiring the institution controlling the relevant system to explain the technical circumstances. This allocation is justified not by a presumption that healthcare providers act improperly but by the principle of informational asymmetry. The institution possesses the technical knowledge necessary to explain its information system, whereas the patient ordinarily does not. Evidentiary fairness therefore requires a distribution of procedural responsibilities that reflects actual control over the evidence rather than merely formal equality between the litigants.

Toward an Evidentiary Equality Framework for Indonesian Medical Malpractice Litigation

The preceding analysis indicates that the central legal problem is not the absence of evidentiary value in electronic medical records but the unequal ability of litigants to use that evidence. The appropriate response is an evidentiary equality framework that integrates patient access, preservation, authentication, completeness, disclosure, and technical assistance. Such a framework would build upon the existing Indonesian regulatory commitment to electronic medical-record security, confidentiality, integrity, and availability. It would also be consistent with

international evidence that patient access to electronic records can strengthen patient participation and understanding without necessarily producing significant harm when appropriate safeguards are implemented (D'Costa, Kuhn, and Fritz 2020; Tapuria et al. 2021). The objective should not be to privilege patients as claimants but to ensure that technological control over evidence does not produce an unjustified procedural advantage for healthcare institutions.

The first component of the framework should be meaningful patient access to relevant electronic medical records. Access should ordinarily include information necessary to understand the treatment received, the chronology of relevant clinical events, diagnostic findings, prescriptions, and clinical decisions. Where a malpractice dispute raises questions concerning the timing or modification of entries, access should be capable of extending to relevant metadata and audit information. Such access should remain subject to appropriate redaction of unrelated third-party information and other legitimate confidentiality interests. The international literature demonstrates that patient access is increasingly regarded as an important dimension of patient-centered healthcare, although implementation remains fragmented (Essйn et al. 2018; Alomar et al. 2024). For Indonesian law, the implication is that the concept of patient access should evolve from merely receiving a copy of information toward obtaining information in a form that permits meaningful verification and use.

The second component should be a preservation mechanism triggered by reasonable foreseeability of a medical dispute. Healthcare institutions should maintain relevant electronic records in a manner that protects their integrity once a complaint, adverse event, demand, or other circumstance reasonably indicates that litigation may arise. Preservation should extend beyond the visible clinical record where metadata or audit information is materially relevant to the dispute. This principle is supported by the growing recognition of audit logs as sources of information concerning user activity and system interactions (Rule, Chiang, and Hribar 2020). It would also respond to the risks identified in malpractice research concerning the role of electronic systems in reconstructing clinical events. Preservation should be proportionate, targeted, and limited to information reasonably connected to the disputed episode so that the obligation does not become an unreasonable technical or financial burden on healthcare institutions.

The third component should be judicially supervised disclosure. Where the patient demonstrates a reasonable basis for questioning the completeness, authenticity, or chronology of the disclosed electronic medical record, the court should have authority to require the healthcare institution to provide additional relevant information. Such information may include amendment histories, audit logs, system-generated timestamps, or other technical records necessary to resolve the dispute. This procedure would be preferable to a system in which patients must independently obtain forensic expertise before they can even determine whether a technical problem exists. It would also prevent the healthcare institution from becoming the exclusive gatekeeper of information necessary to test its own

evidence. At the same time, judicial supervision would ensure that disclosure remains proportionate and does not unnecessarily expose unrelated personal or confidential information.

The fourth component should be access to neutral expertise where technical complexity prevents meaningful evaluation by the court or patient. Electronic medical records are not merely textual documents; their meaning may depend upon system architecture, metadata, audit-log structures, authentication mechanisms, and software functionality. Courts may therefore require assistance from experts capable of explaining whether a record reflects contemporaneous documentation, later modification, automated system activity, or other relevant technical processes. Expert assistance should not replace judicial assessment of evidence but should enable the court to understand the technological characteristics upon which evidentiary reliability depends. This approach is particularly justified where the healthcare institution possesses specialized knowledge concerning the electronic system and the patient does not. Procedural equality requires that technical complexity should not itself become an invisible barrier to a legitimate malpractice claim.

The evidentiary equality framework should also preserve the distinction between patient autonomy and institutional confidentiality. A patient-centered approach does not imply that all information contained within a healthcare institution's information system should automatically be disclosed. Personal-data protection and medical confidentiality remain legitimate legal interests. Law Number 27 of 2022 establishes a comprehensive framework for personal-data protection, including rights of data subjects and obligations of data controllers and processors. The appropriate reconciliation is therefore based upon relevance and proportionality. The patient should have meaningful access to information concerning the disputed treatment, while unrelated third-party information and information whose disclosure would create disproportionate privacy risks should remain protected. This balance prevents evidentiary reform from undermining the confidentiality principles that constitute an essential foundation of healthcare.

Ultimately, evidentiary equality requires a shift in the way electronic medical records are conceptualized within Indonesian medical malpractice law. The electronic record should not be treated solely as an administrative artifact maintained for continuity of care. It should also be recognized as an accountability instrument capable of supporting or challenging competing accounts of professional conduct. The value of that accountability function depends upon whether both parties can meaningfully examine the record. International literature demonstrates that EHRs can reduce some risks while simultaneously introducing new forms of documentation and system-related risk (Mangalmurti, Murtagh, and Mello 2010; Graber et al. 2019). The Indonesian framework should therefore avoid technological determinism. Digitization does not automatically create better evidence; it creates a different evidentiary environment requiring rules capable of addressing access, metadata, integrity, preservation, and technical asymmetry.

Conclusion

Electronic medical records have become indispensable to the reconstruction of clinical events in medical malpractice disputes, but their evidentiary importance cannot be reduced to the formal recognition of electronic documents. Their reliability depends upon provenance, authenticity, integrity, completeness, chronology, preservation, and the ability of litigants to examine the information underlying the record. International research indicates that EHRs can affect malpractice litigation in complex ways, including by documenting clinical decisions and simultaneously creating new risks associated with documentation practices and health-information technology (Mangalmurti, Murtagh, and Mello 2010; Paterick et al. 2018; Graber et al. 2019). The Indonesian regulatory framework already recognizes the importance of security, confidentiality, integrity, availability, and legal certainty in electronic medical-record management.

The remaining challenge is to translate these principles into procedural safeguards applicable when electronic medical records become contested evidence. The principal finding of this study is that formal evidentiary admissibility does not necessarily produce evidentiary equality. Patients may have a legal interest in their medical information while lacking equivalent practical access to the electronic systems, metadata, audit logs, preservation mechanisms, and technical expertise necessary to challenge institutional records. This asymmetry can become particularly serious when the healthcare institution controlling the evidence is also a party to the dispute. Patient-access literature demonstrates that access to electronic records can improve understanding, communication, engagement, and patient participation (Ross and Lin 2003; Delbanco et al. 2012; Tapuria et al. 2021). These findings support the broader proposition that access to health information is not merely an administrative entitlement but an important condition for meaningful patient autonomy and procedural participation.

This article therefore proposes an evidentiary equality framework based on meaningful access, preservation, proportionate disclosure, authentication, completeness, and neutral technical assistance. The framework does not require unrestricted disclosure or presume institutional misconduct. Rather, it allocates procedural responsibilities according to actual control over electronic evidence. Healthcare institutions should preserve relevant records when disputes are reasonably foreseeable, provide meaningful access to information concerning the patient's treatment, and be capable of explaining the technical circumstances of records when authenticity or integrity is reasonably challenged. Courts should possess sufficient authority to require additional disclosure and obtain technical assistance where necessary. Such measures would strengthen the capacity of electronic medical records to serve both clinical and accountability functions.

The broader implication is that Indonesian medical malpractice law should move beyond a document-centered understanding of electronic medical records

toward an evidence-system approach. Under this approach, the evidentiary object is not limited to the visible clinical note but may include the technical circumstances necessary to understand its origin, chronology, integrity, and completeness. Such a model would align the legal treatment of electronic medical records with the technological realities of contemporary healthcare while maintaining legitimate interests in medical confidentiality and personal-data protection. The ultimate purpose is not to make malpractice litigation easier for patients at the expense of healthcare providers, but to ensure that neither technological complexity nor institutional control over information infrastructure determines the outcome of a dispute. Evidentiary equality should therefore become an essential principle in the continuing development of Indonesian digital health law.

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