

## Factors Causing Damage to Medical Record Files at TK.II dr. R. Hardjanto Hospital

Pradea Wulandari<sup>1\*</sup>, Nurhafidah<sup>2</sup>, Annisa Ulfah<sup>3</sup>, Nila Trisna Yulianti<sup>4</sup>,  
Endras Amirta Hanum<sup>5</sup>

<sup>1,2,3,4,5</sup>Politeknik Borneo Medistra, Jl. Three No. 99, Mount Samarinda, North Balikpapan,  
Mt.Samarinda, North Balikpapan, East Kalimantan 76125, Indonesia  
E-mail: [pradea@poltekborneomedistra.ac.id](mailto:pradea@poltekborneomedistra.ac.id)<sup>1\*</sup>

Article Info	Abstract
<b>Article History</b> Received: 2026-01-12 Revised: 2026-03-05 Published: 2026-03-31  <b>Keywords:</b> file damage; filling system; hospital; medical records; 7M	<i>Damaged medical records threaten patient safety and service delivery. The objective of this study is to analyze the damage to medical record files at TK.II dr. R. Hardjanto Hospital using the 7M technique. Method a qualitative study through observation, documentation, and interviews with eight informants. Data were analyzed using reduction, display, and conclusion techniques with triangulation. The finding revealed multiple contributing factors: inadequate staff education and lack of training (Man); insufficient and densely packed storage racks (Machine); absence of specific maintenance SOPs (Method); standard quality file covers (Material); limited physical space and environmental conditions (Media); lack of punishment policy (Motivation); and limited budget allocation for file procurement (Money). Medical record damage was influenced by interrelated managerial and environmental factors. Hospitals should implement regular training, establish clear maintenance SOPs, improve storage facilities, and strengthen budget planning to enhance medical record preservation.</i>
<b>Artikel Info</b> <b>Sejarah Artikel</b> Diterima: 2026-01-12 Direvisi: 2026-03-05 Dipublikasi: 2026-03-31  <b>Kata kunci:</b> kerusakan berkas; rekam medis; rumah sakit; sistem penyimpanan; 7M	<b>Abstrak</b> Kerusakan berkas rekam medis mengancam keselamatan pasien dan kualitas pelayanan. Tujuan penelitian ini adalah untuk menganalisis kerusakan berkas rekam medis di Rumah Sakit TK.II dr. R. Hardjanto dengan menggunakan teknik 7M. Metode penelitian kualitatif melalui observasi, dokumentasi, dan wawancara terhadap delapan informan. Data dianalisis dengan teknik reduksi, penyajian, dan penarikan kesimpulan serta triangulasi. Temuan menunjukkan berbagai faktor penyebab, yaitu: pendidikan staf yang tidak memadai dan kurangnya pelatihan (Man); rak penyimpanan yang tidak mencukupi dan terlalu padat (Machine); tidak adanya SOP pemeliharaan khusus (Method); kualitas map berkas yang standar (Material); keterbatasan ruang fisik dan kondisi lingkungan (Media); tidak adanya kebijakan sanksi (Motivation); serta keterbatasan alokasi anggaran untuk pengadaan berkas (Money). Kerusakan rekam medis dipengaruhi oleh faktor manajerial dan lingkungan yang saling berkaitan. Rumah sakit perlu melaksanakan pelatihan rutin, menetapkan SOP pemeliharaan yang jelas, meningkatkan fasilitas penyimpanan, dan memperkuat perencanaan anggaran untuk menjaga kelestarian berkas rekam medis.

### INTRODUCTION

Medical record is a file that contains contents in the form of notes and documents that explain the patient's identity, the results of an examination of the treatment process, efforts in the form of actions in serving other things to patients in health agencies. (Khairani, 2022). According to the Regulation of the Minister of Health No. 269/Menkes/Per/III/2008 concerning

Medical Records, a medical record is a file containing notes and documents about patient identity, examinations, treatments, procedures, and other medical services that have been provided to the patient. Medical records can also be defined as information, whether written or recorded, regarding identity, anamnesis, physical and laboratory examinations, diagnosis, all services and medical actions provided to patients, and

treatments for both outpatient and inpatient care (Permenkes, 2008).

Regulation of the Minister of Health (PMK) No. 312 of 2020 concerning Standards for the Medical Record and Health Information Profession emphasizes that Medical Record and Health Information (PMIK) professionals in every healthcare facility are required to provide professional health information services and be oriented toward the health information needs of healthcare providers (Garmelia et al., 2021).

The quality of medical records reflects the overall quality of healthcare services. (Syafarudin et al., 2023). Medical records are essential because they capture patient identity, examinations, treatments, medical acts, and other healthcare services. They underpin clinical decision-making, continuity of care, administrative processes, and health service evaluation. Medical records often serve as evidence in malpractice, dispute, and insurance lawsuits. Thus, healthcare professionals and institutions must maintain medical record file integrity, completeness, and physical condition to assure service quality, patient safety, and legal protection. Medical record file damage can delay service, compromise clinical information, lower care quality, and endanger patient safety.

A preliminary survey conducted at TK.II dr. R. Hardjanto Hospital revealed that record storage racks have become overcrowded, making it difficult for staff to retrieve and return files properly. As a result, many files are pulled out or inserted by force, leading to torn covers and damaged documents. Dust accumulation

was also observed on several files, indicating suboptimal maintenance of the storage environment. From a sample of 50 medical record files, 38 were found to be physically damaged, either due to torn folders or poor storage conditions. This situation demonstrates the need for a systematic evaluation of the factors contributing to file damage. Therefore, efforts to analyze the causes of medical record damage using the 7M management approach (Man, Machine, Method, Material, Media, Motivation, and Money) are essential to improve the storage and maintenance system in the hospital.

Previous research has identified medical record damage determinants. Insufficient maintenance, staff training, and medical record management expertise caused file physical deterioration, according to Universitas Airlangga research (Kholifah et al., 2020). Document damage was also caused by overcrowded storage racks, poor environmental management, and unclear maintenance regulations at RSUD Teluk Kuantan (Dwiyanti, 2021). According to other research, temperature, humidity, dust, sunshine, and inappropriate filing methods reduce document longevity (Anggraeni et al., 2022; Reziana, 2019). Medical record preservation requires proper storage, environmental management, and staff competence, according to these research.

However, most previous research tends to examine these factors separately, focusing only on physical environment, storage facilities, or human resources without integrating them into a comprehensive management framework.

There remains limited research that analyzes medical record damage holistically using the 7M approach, which encompasses human factors, infrastructure, procedures, materials, environmental conditions, motivation systems, and financial support simultaneously. This gap highlights the need for a more systematic and integrated analysis.

Therefore, this study contributes to the existing body of knowledge by applying the 7M framework to comprehensively identify and analyze the factors causing medical record damage at TK.II dr. R. Hardjanto Hospital. By adopting this holistic perspective, the study aims to provide structured and practical recommendations for improving medical record preservation, strengthening management systems, and enhancing the overall quality and safety of hospital services.

## METHODS

This study used a descriptive qualitative design conducted at TK II dr. R. Hardjanto Hospital, specifically in the medical record and registration units, to explore the factors causing medical record damage using the 7M framework (Man, Machine, Method, Material, Media, Motivation, and Money). The head of the medical record unit, medical record staff, and registration officers were selected as eight informants from their direct roles and responsibilities in managing, storing, retrieving, and maintaining medical records. This was sufficient to achieve data saturation and provide diverse perspectives across different positions. Data were acquired by direct observation of storage

conditions and document handling methods, documentation analysis of relevant records and policies, and in-depth semi-structured interviews to understand file maintenance experiences and perceptions. Systematic data reduction, display, and conclusion drawing ensured the legitimacy of findings, as did source and technique triangulation.

## RESULTS AND DISCUSSION

### 1. Man (Human Resources)

The qualifications of medical record staff varies, and five out of eight informants were not graduates of medical record education programs. This influences their knowledge regarding document preservation.

**Table 1.** Staff education qualifications

No	Informant	Position	Education Level
1	Informant 1	Head of Medical Records	D3 Medical Records
2	Informant 2	Minkes Staff	D4 Medical Records
3	Informant 3	Registration Admin	Senior High School
4	Informant 4	Registration Staff	SMK Pemasaran
5	Informant 5	Registration Staff	Islamic Junior High School
6	Informant 6	Registration Staff	Senior High School
7	Informan 7	Honorary Staff	D3 Medical Records
8	Informan 8	Honorary Staff	Bachelor of Mathematic

The table shows only three staff members have medical records training. This mismatch could compromise file preservation and technical treatment.

Several informants stated that no training related to medical record maintenance had ever been conducted:

“We’ve never had any training, only informal instructions from supervisors.” (Informant 5)

“There is no training here, some external seminars exist but mostly for electronic records, not manual.” (Informant 2)

## 2. Machine (Storage Facilities)

Storage racks are insufficient and overcrowded. Files are tightly compressed, and some are damaged during retrieval.

“The racks are still standard, not roll-o-pack.” (Informant 1)

“The documents are too dense, often pulled forcefully.” (Observation notes)

Observation showed torn and worn folders stored on wooden shelves, including racks that require staff to reach higher levels manually.

## 3. Method

There is no Standard Operating Procedure (SOP) specifically for record maintenance.

“We don’t have specific SOP for vacuum cleaning or maintenance, only for assembling.” (informant 1)

“There is no SOP” (Informant 6)

Maintenance practices are conducted based on routine habits rather than written guidelines.

## 4. Material

The folders used for medical records are of standard quality and easily damaged under high density storage conditions.

“Just standard quality, from hospital subsidy.” (Informant 1)

## 5. Media (Work Environment)

The filling room was narrow, with limited ventilation and insufficient lighting.

“The space is narrow and hot.” (observation notes)

However, temperature control was adequate:

“The humidity is controlled, not too moist.” (Informant 4)

## 6. Motivation

Rewards exist but are small-scale, while there is no punishment for damage.

“Every month, we give small prizes during internal meeting.” (Informant 2)

“There is no punishment; we fix it together.” (Informant 7)

## 7. Money (budget Allocation)

Budget limitations delay procurement of new folders.

“There is no specific budget; we submit requests to procurement.” (Informant 7)

The findings indicate that damage to medical record files should be understood as a systemic organizational issue rather than an isolated technical problem. Using a systems perspective, each 7M component interacts dynamically, creating a cycle that sustains document deterioration.

From the infrastructure (Machine) perspective, overcrowded storage reflects a mismatch between service demand and facility capacity. As patient volume increases without proportional expansion of storage systems, physical compression and forced retrieval become routine. This mechanical stress accelerates folder deterioration, consistent with Hadiyanti (2021), who emphasizes the risks of overloaded storage systems. The continued use of conventional shelving further limits spatial efficiency and ergonomic safety.

The absence of a maintenance SOP (Method) represents a governance gap. In quality management principles, standardization is essential to reduce variation and human error. Without written procedures regulating inspection, cleaning, and replacement, preservation practices rely on individual discretion. As noted by Dwiyanti (2021), such conditions weaken accountability and allow damaged files to remain in circulation.

Regarding Material, the durability of standard-grade folders becomes compromised under high-density storage and frequent manual handling. According to Kholifah (2020), material quality directly influences record longevity. When material vulnerability interacts with mechanical pressure and repeated retrieval, deterioration becomes cumulative and unavoidable.

The work environment (Media) further shapes operational risk. Although humidity is controlled, limited space and lighting reduce ergonomic efficiency and increase handling errors. Reziana (2019) explains that suboptimal physical conditions accelerate degradation of paper-based records, particularly in facilities with high document circulation.

From a behavioral management perspective, the Motivation factor highlights the absence of structured performance control. Informal rewards without measurable accountability indicators may weaken discipline in document care. Swari (2024) notes that effective motivational systems integrate incentives with

monitoring mechanisms to reduce operational errors.

The budget (Money) factor underpins all other elements. A reactive procurement system without dedicated maintenance funding restricts timely replacement of materials and infrastructure upgrades. Sustainable health information management requires consistent financial commitment, as emphasized by Kholifah (2020).

Overall, the interaction among limited budget allocation, inadequate infrastructure, absence of standardized procedures, variable staff competence, and weak accountability mechanisms forms a reinforcing cycle of deterioration. From a systems theory perspective, improvement must target multiple components simultaneously. Strengthening only one aspect such as upgrading storage equipment will not produce sustainable change without parallel improvements in policy, training, environmental management, and financial planning.

## CONCLUSION

Medical record file damage at TK.II dr. R. Hardjanto Hospital is influenced by interconnected internal and external factors, including human resource competence, infrastructure limitations, procedural gaps, material quality, environmental conditions, motivational systems, and financial constraints. Addressing these issues requires integrated managerial improvements such as strengthening staff capacity through regular training, developing and enforcing clear maintenance SOPs, optimizing storage

systems and environmental controls, implementing structured reward and monitoring mechanisms, and ensuring adequate budget planning for record materials. Practically, these measures are expected to enhance document durability, improve operational efficiency in filing services, and ultimately support better quality of care and patient safety.

## REFERENCES

- Abduh, R. (2021). Kajian hukum rekam medis sebagai alat bukti malapraktik medis. *De Lega Lata: Jurnal Ilmu Hukum*, 6(1), 221-234.
- Anggraeni, W. I., Dewi, D. R., & Rumana, N. A. (2022). Literature Review: Tinjauan Aspek Keamanan Dan Kerahasiaan Rekam Medis Di Ruang Filing. *SEHATMAS: Jurnal Ilmiah Kesehatan Masyarakat*, 1(2), 137-150.
- Dwiyanti K, T. (2021). Faktor Penyebab Terjadinya Kerusakan Fisik Dokumen Rekam Medis Di Ruang Filing Rsud Teluk Kuantan. *Jurnal Rekam Medis (Medical Record Journal)*, 297-298.
- Garmelia, E., Lestari, S., & Golo, Z. A. (2021). Tinjauan Efektivitas Kerja Penanggung Jawab Rekam Medis (PJRM) di Bangsal Perawatan Sesuai dengan Kompetensi Perekam Medis dan Informasi Kesehatan (PMIK). *Jurnal Manajemen Informasi Kesehatan Indonesia (JMIKI)*, 9(1), 5.
- Hadiyanti S, M. S. (2021). Faktor-Faktor Penyebab Kerusakan Fisik Rekam Medis Rawat Jalan Di Puskesmas Paseh. *Jurnal Ilmiah Indonesia*, 1338-1342.
- Khairani, & Harefa, Khairannisa. (2022). Tinjauan Faktor-Faktor Penyebab Terjadinya Kerusakan Dokumen Rekam Medis Rawat Inap Di Rumah Sakit Putri Hijau Medan. *Jurnal Ilmiah Perekam dan Informasi Kesehatan Imelda (JIPIKI)*. 7. 161-169.
- Kholifah N A, N. N. (2020). Analisis Faktor Penyebab Kerusakan Berkas Rekam Medis di Rumah Sakit Universitas Airlangga. *Jurnal Rekam Medik Dan Informasi Kesehatan*, 366-370.
- Permenkes, R. I. (2008). Permenkes Nomor 269/Menkes/Per/III/2008 Tentang Rekam Medis. *Jakarta: Kemenkes RI*
- Rahman, K. (2023). *Analisis Penerapan Sistem Informasi Akuntansi Pelayanan Jasa Rawat Inap Dalam Menunjang Efektivitas Pengendalian Internal Pendapatan Rumah Sakit (Studi Kasus Rumah Sakit Mata Smec Medan)* (Doctoral dissertation, Universitas Islam Negeri Sumatera Utara Medan).
- Reziana Nia, A. M. (2019). Faktor-Faktor Penyebab Kerusakan Dokumen Rekam Medis Di Ruang Filing Rsud Dr. M Yunus Bengkulu. *Manajemen Informasi Kesehatan*, 20.
- Sevira, N. (2024). *Gambaran Faktor-Faktor Penyebab Terjadinya Kerusakan Dokumen Rekam Medis Di Ruang Penyimpanan Rumah Sakit Umum Madina Bukittinggi Tahun 2024* (Doctoral dissertation, Universitas Muhammadiyah).
- Sugiyono. (2016). *Memahami Penelitian Kualitatif*. Bandung: Alfabeta
- Suharto, S., Alhadar, N. Q., & Purba, A. (2023). Tinjauan Penerapan Kesehatan dan Keselamatan Kerja (K3) Terhadap Petugas Rekam Medis Pada Ruang Penyimpanan Di Rsau Dr. M. Salamun Bandung. *Jurnal TEDC*, 17(2), 141-146.
- Swari J, d. (2024). Analisis Faktor Penyebab Kerusakan Rekam Medis di Puskesmas X. *Jurnal Rekam Medik dan Informasi Kesehatan*, 203.
- Syafarudin, A. R., Arum, K. K., & Rahmansyah, I. (2023). Faktor penyebab kerusakan dokumen rekam medis di Puskesmas Tambak 1. *INNOVATIVE: Journal of Social Science Research*, 3(4), 8165-8178.