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Design of a Web-Based Medical Record Correspondence Information System with an Audit Trail Feature at Dustira Level II Hospital

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Abstract: Medical record correspondence management at Dustira Level II Hospital is still carried out through processes that are not yet optimal, particularly in recording user activities, so monitoring, tracking data changes, and supervising medical record document management have not been effective. This study aimed to design a web-based Medical Record Correspondence Information System equipped with an Audit Trail feature to support more structured, secure, and accountable management of medical record correspondence. A descriptive qualitative approach was used, with data collected through observation, interviews, and documentation studies. System development employed the Waterfall method, consisting of requirements analysis, system design, program coding, testing, and maintenance. The system was developed using PHP and MySQL and designed using a flowmap, context diagram, Data Flow Diagram Level 1, and Entity Relationship Diagram. The resulting application manages patient data, physicians, users, medical resumes, discharge summaries, death claims, file-loan registers, reports, and user activity logs. Black Box Testing showed that all tested functions were valid. The Audit Trail constitutes the key feature by automatically documenting user activities to strengthen security, monitoring, transparency, and accountability.

Keywords: Information System, Medical Record Correspondence, Audit Trail, PHP, MySQL

INTRODUCTION

Digital transformation in the health sector has brought significant changes to healthcare delivery, particularly in information management, which has shifted from manual processes to information-technology-based systems. The use of web-based information systems enables data management to be performed more quickly, accurately, and in an integrated manner, thereby

supporting improved effectiveness and efficiency in healthcare services. Medical records are documents containing patient identity, examination results, diagnoses, medical procedures, treatments, and other services provided to patients. Proper medical record management is essential to support continuity of care, the provision of health information, and administrative and legal evidence. Along with technological development, medical record management has begun to transition from paper-based records to electronic systems in order to improve efficiency, accuracy, and data security.

Medical record correspondence is one of the administrative activities in the medical record unit related to the management of various patient-service documents, such as medical resumes, medical certificates, and documents for borrowing and returning medical record files. The management of these documents requires an information system capable of supporting recording, storage, retrieval, and reporting so that correspondence activities can be performed more effectively. In managing medical record documents, information security is an important factor for maintaining the confidentiality, integrity, and accountability of patient data. The implementation of electronic medical records also requires a system capable of maintaining data security, integrity, and availability so that healthcare processes can be performed safely and reliably. One mechanism that can support these needs is an Audit Trail, which records user activities within the system.

Based on observations conducted in the Medical Record Unit of Dustira Level II Hospital, medical record correspondence is still managed manually using paper documents. This condition causes document storage and retrieval to take longer and makes it difficult for officers to monitor user activities when data are changed. In addition, the absence of an integrated activity-recording mechanism may increase the risk of errors and complicate accountability for changes made to medical record correspondence data. Previous studies have shown that web-based information systems can improve the effectiveness of medical record management. Silia et al. (2024) developed a web-based Release of Information Medical Record Information System that improved the effectiveness of medical record information release. Hermawan et al. (2024) showed that a web-based electronic medical record data-processing information system facilitated data retrieval and supported outpatient reporting governance. Other studies have also emphasized the importance of electronic medical records and security mechanisms in supporting digital health transformation.

However, most previous studies have focused on electronic medical record management, release of medical record information, or healthcare reporting. These studies have not specifically integrated medical record correspondence management covering medical resumes, discharge summaries, death claims, file-loan registers, and reports with an Audit Trail feature that automatically records user activities. Therefore, this study addresses that gap by designing a web-based Medical Record Correspondence Information System with an Audit Trail feature at Dustira Level II Hospital. The study aims to produce a system design that supports more structured, secure, transparent, and accountable management of medical record correspondence.

METHODS

Research Design

This study used a qualitative approach with a descriptive method. A descriptive qualitative approach was selected because it can systematically describe the actual condition of medical record correspondence management. Through this approach, the researchers identified problems, user needs, and system requirements as the basis for designing the information system.

Conceptual Flow

The conceptual flow began with identifying problems in medical record correspondence management at Dustira Level II Hospital. Data were then collected through observation, interviews, and documentation studies. The collected data were analyzed to determine user and

system requirements. The analysis results became the basis for system design and implementation, followed by functional testing and evaluation.

Research Informants

The informants were medical record officers involved in medical record correspondence management at Dustira Level II Hospital. They were selected because they directly understood the work processes, constraints, and needs related to medical record document management.

Research Instruments

The research instruments consisted of observation guidelines, interview guidelines, and documentation. These instruments were used to obtain information about correspondence management processes, the constraints encountered, and user requirements for the system being developed.

Data Collection Methods

Data collection was conducted to obtain information regarding medical record correspondence management at Dustira Level II Hospital. The techniques included observation, interviews, and documentation studies. Direct observation was conducted in the Medical Record Unit to examine the management of medical resumes, discharge summaries, death claims, file-loan registers, and report preparation. Interviews with medical record officers explored workflows, constraints, and user requirements. Documentation studies examined correspondence documents as well as relevant books, journals, regulations, and previous studies (Sugiyono, 2022).

Data Analysis

Data were analyzed descriptively based on the results of observations, interviews, and documentation studies. The data were examined to identify problems, user needs, and system requirements. The analysis results were then used as the basis for determining system features and designs.

System Development Method

The system development method used in this study was Waterfall. This method was selected because it provides systematic and structured development stages that are appropriate for system development. The Waterfall stages consist of requirements analysis, system design, program coding, testing, and maintenance.

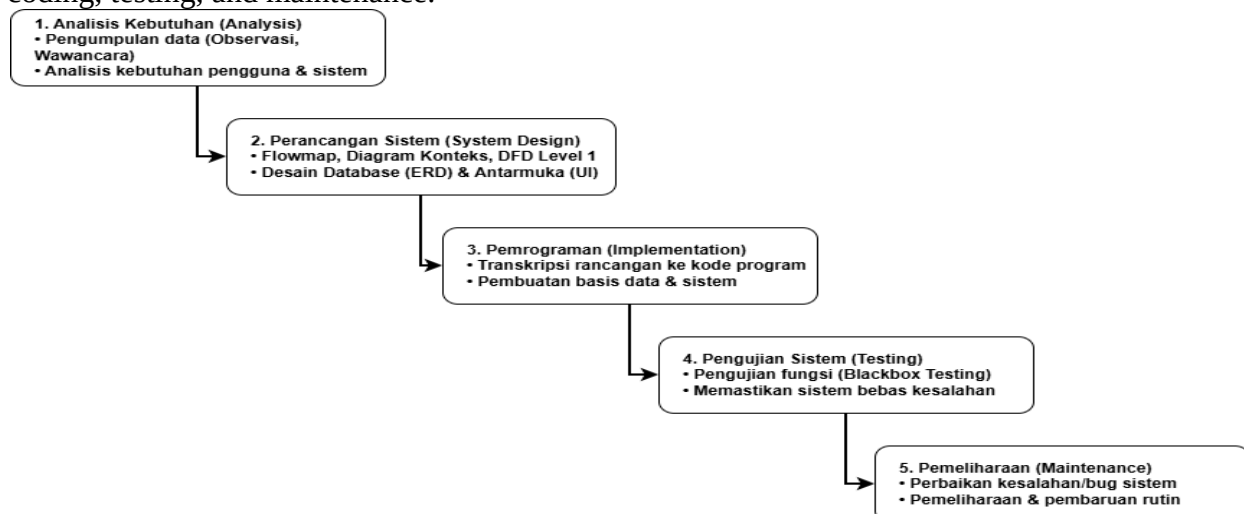


Figure 1. Waterfall Method

Requirements Analysis

The requirements analysis stage was conducted through observation, interviews, and documentation studies to identify user needs for the system. The analysis focused on medical record correspondence management and the need for an Audit Trail feature to record user activities as a form of supervision and data security. The analysis results were used as the basis for determining system functions and features.

System Design

The system design stage described the system to be developed before implementation. The design used a Flowmap, Context Diagram, Data Flow Diagram (DFD) Level 1, and Entity Relationship Diagram (ERD). A user-interface design was also prepared so that the system could be used more easily by users.

Program Coding

The implementation stage translated the system design into a web-based application. The system was developed using PHP and MySQL and was supported by HTML, CSS, JavaScript, Bootstrap, and XAMPP as the local server.

Program Testing

After implementation was completed, the system was tested using Black Box Testing. Testing evaluated all system functions based on the inputs and outputs produced without examining the internal program-code structure. Each system module was tested to ensure that all features operated according to user requirements.

System Maintenance

The maintenance stage is intended to correct errors or bugs, improve system performance, and ensure that all features, including the Audit Trail, continue to operate properly according to user requirements.

RESULTS AND DISCUSSION

Results

Interview Results

Interviews with medical record officers showed that medical record correspondence was still processed manually using paper documents. This condition requires physical storage space, and document retrieval can take time, particularly when the required documents have been stored together with other files. The manual process also makes it difficult to monitor user activities and to trace data changes. Based on these conditions, a web-based information system is needed to manage medical record correspondence in a more structured manner. The designed system covers medical resumes, discharge summaries, death claims, file-loan registers, and an Audit Trail feature that records user activities.

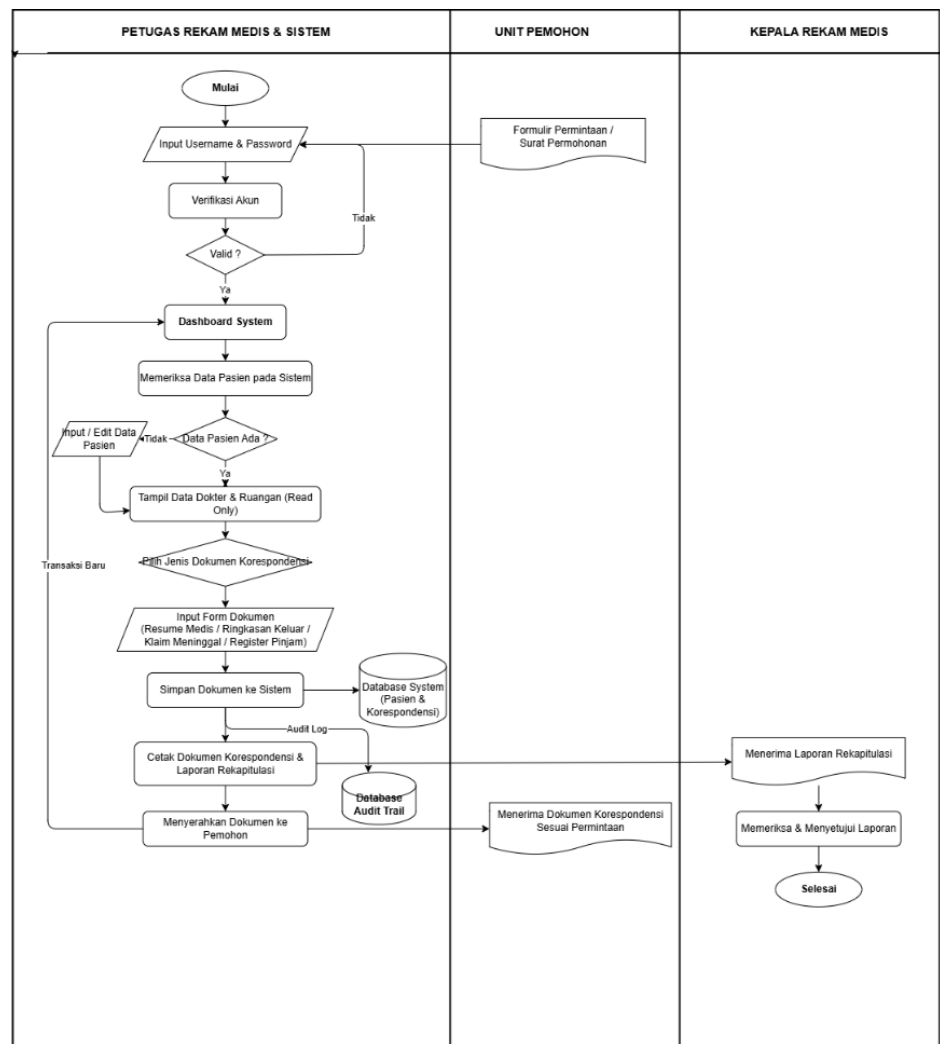


Figure 2. Flowmap of the Existing System

Analysis of the Existing System

Observations at Dustira Level II Hospital showed that medical record correspondence management was still performed manually using paper documents. Medical record officers managed patient data, medical resumes, discharge summaries, death claims, file-loan registers, and reports separately, so data retrieval and monitoring required additional time. Based on these problems, system requirements were analyzed to determine the functions needed for medical record correspondence management. The required main functions include management of patient data, user data, medical resumes, discharge summaries, death claims, file-loan registers, and reports.

These requirements were formulated from the problems found in the existing system, particularly paper-based document management, which makes document retrieval time-consuming. With a web-based system, data can be stored in a structured manner and retrieved more easily. The Audit Trail feature also supports monitoring by recording user activities in the system. The next stage was system design using a Flowmap, Context Diagram, Data Flow Diagram Level 1, and Entity Relationship Diagram to describe process flows, relationships among entities, and data flows. After design, the system was implemented using PHP, MySQL, HTML, CSS, JavaScript, Bootstrap, and XAMPP. The subsequent testing stage used Black Box Testing to ensure that all functions operated according to user requirements. Testing showed that the

functions for login, data management, searching, report printing, and user-activity recording operated properly.

System Requirements Analysis

Based on observations and interviews, the designed system must be able to manage patient data, physician data, user data, medical resumes, discharge summaries, death claims, file-loan registers, and reports in a rapid and integrated manner. The system is also equipped with an Audit Trail feature that records user activities, including login, data entry, data modification, and other relevant actions.

System Design

System design was performed based on the requirements analysis to produce a web-based Medical Record Correspondence Information System that meets user needs. The design describes process flows and relationships among data and incorporates an Audit Trail feature that records each user activity as a mechanism for supervision and accountability.

Context Diagram

The Context Diagram describes the relationship between the system and external entities that interact directly with it. The entities involved in the designed system are the Administrator, Medical Record Officer, and Physician. Each entity exchanges data according to its access rights in medical record correspondence management.

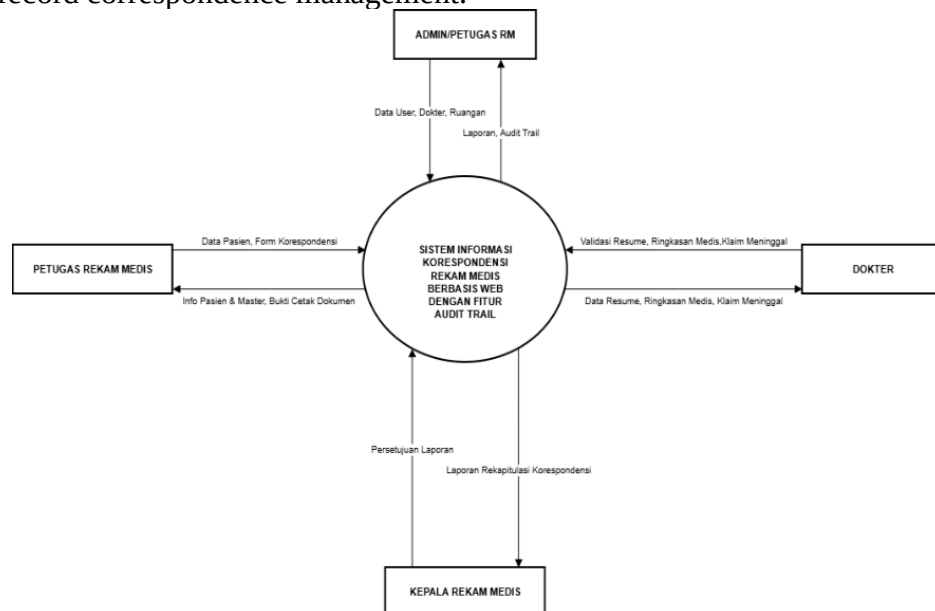


Figure 3. Context Diagram

Data Flow Diagram (DFD) Level 1

The DFD Level 1 describes the main processes in the Medical Record Correspondence Information System, including management of patient data, medical resumes, discharge summaries, death claims, file-loan registers, and reports. The system also includes an Audit Trail feature that records user activities as a form of supervision and data security.

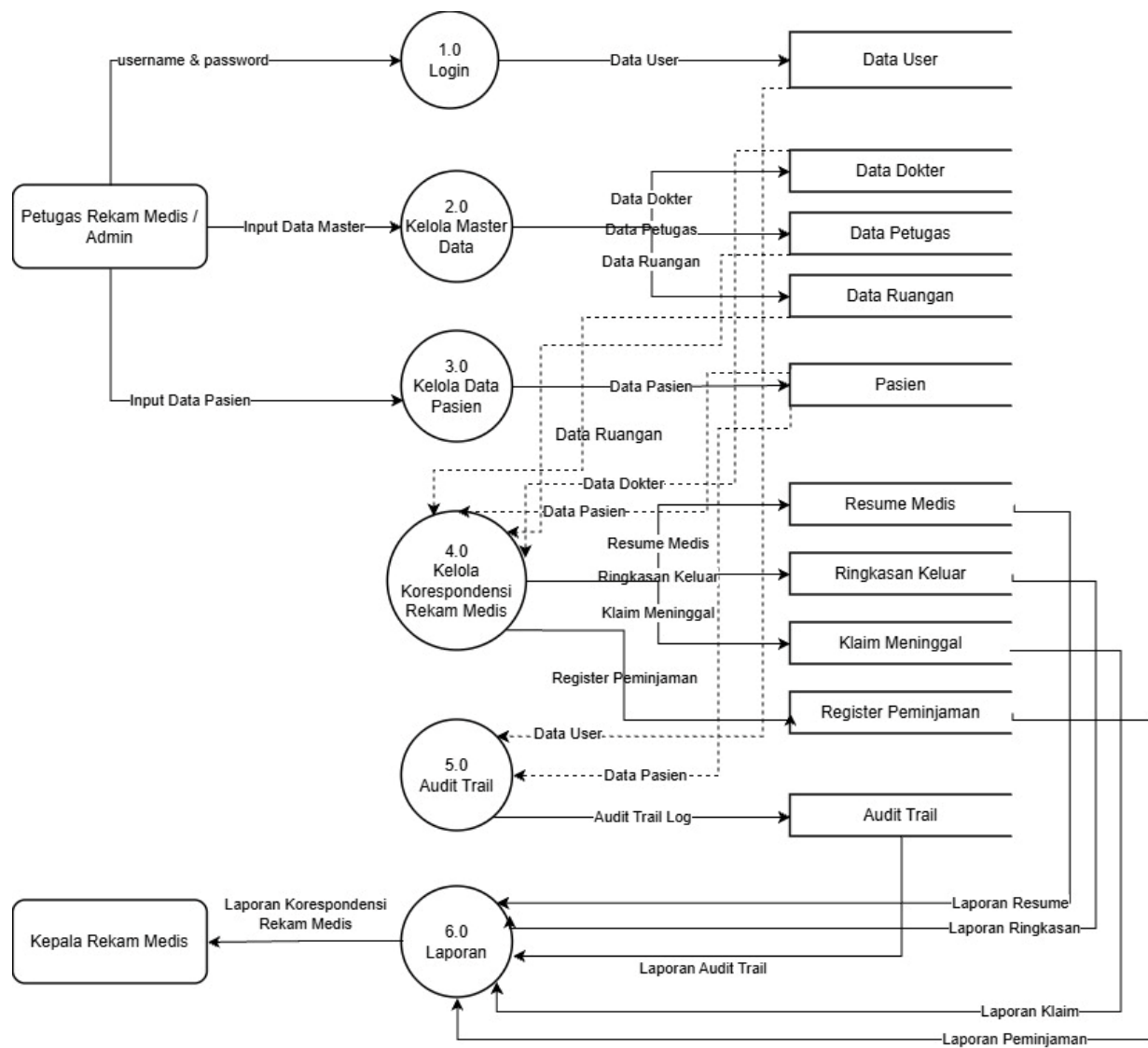


Figure 4. Data Flow Diagram Level 1

Entity Relationship Diagram (ERD)

The Entity Relationship Diagram describes the relationships among entities in the system database so that each dataset can be interconnected and support integrated information management.

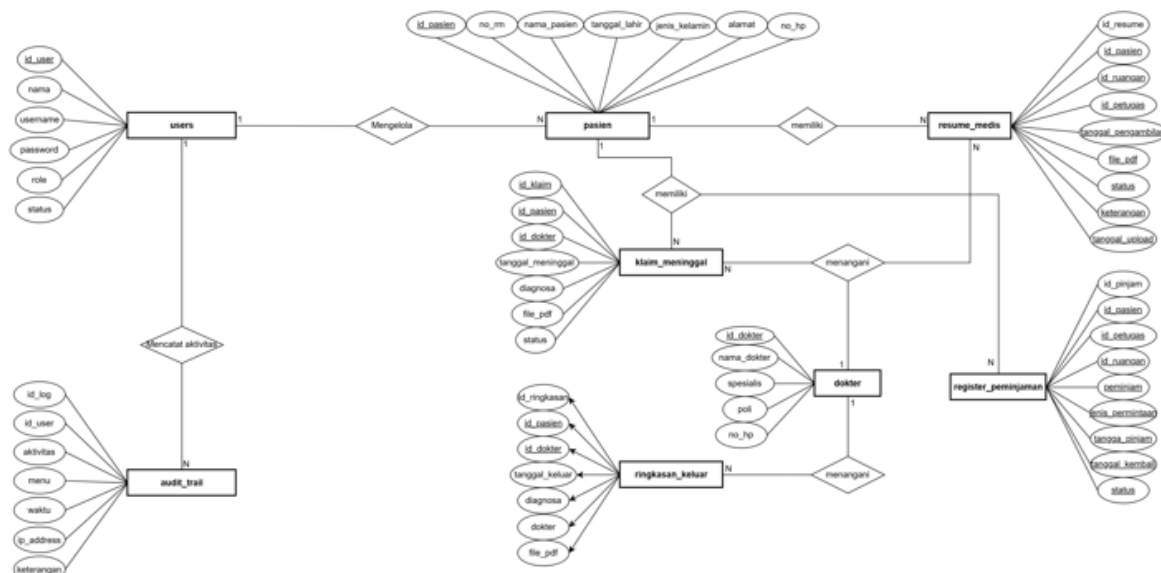


Figure 5. Entity Relationship Diagram

System Implementation

System implementation produced a web-based application designed to support computerized medical record correspondence management. The system provides various data-management menus and an Audit Trail feature that records every user activity, thereby strengthening the security, supervision, and accountability of data management.

Login Page

The Login page is used to authenticate users before they access the system according to their assigned access rights. Users enter their registered username and password to access the system.

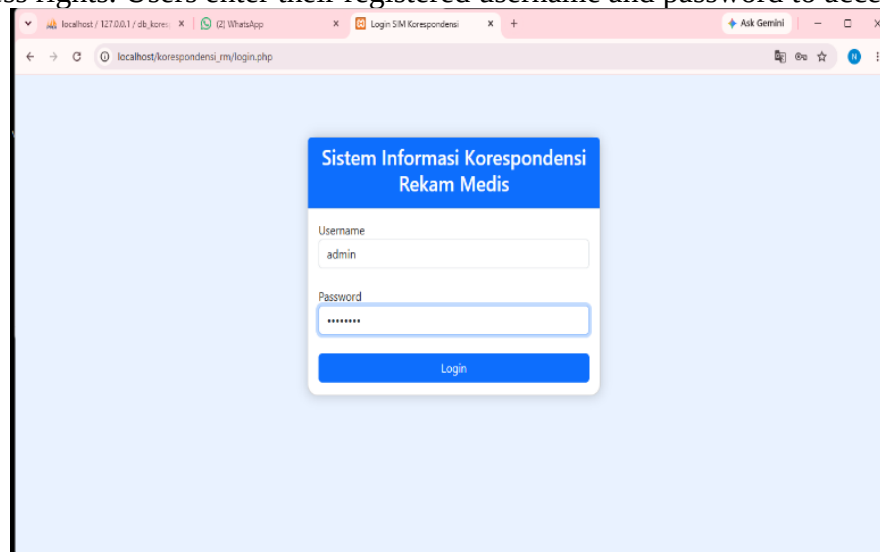


Figure 6. Login Page

Dashboard

The Dashboard is the main page that presents summary information and system data statistics, enabling users to monitor data conditions quickly and efficiently.

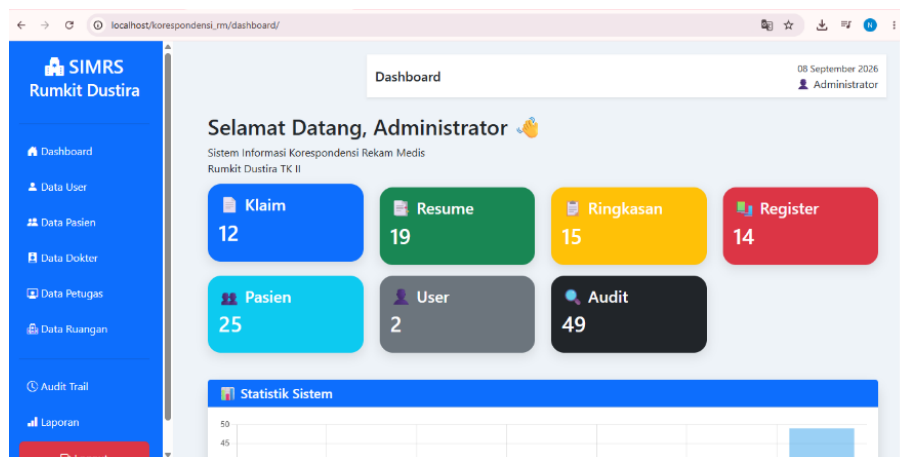


Figure 7. System Dashboard

User Data Page

The User Data page manages system-user information, including name, username, password, role, and user status. This page allows the administrator to add, edit, delete, and manage user access rights according to each role.

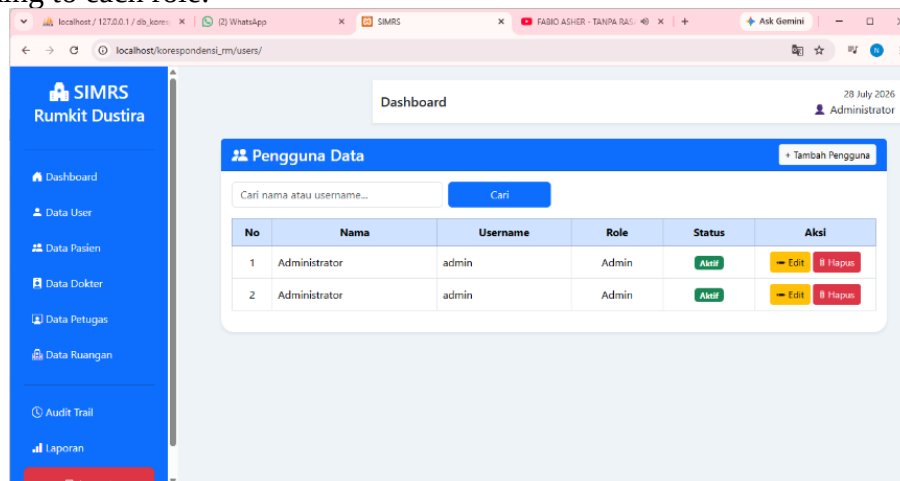


Figure 8. User Data Page

Patient Data Page

The Patient Data page manages patient data in an integrated manner, including recording, searching, editing, and deleting patient information, thereby facilitating rapid information management.

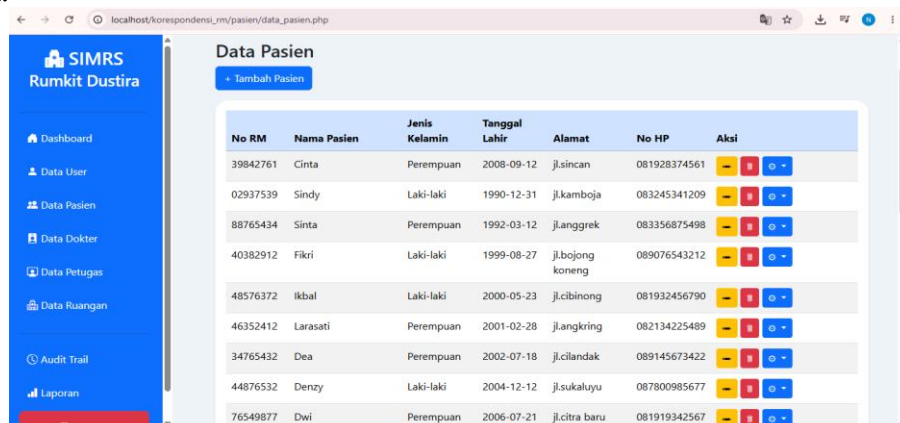
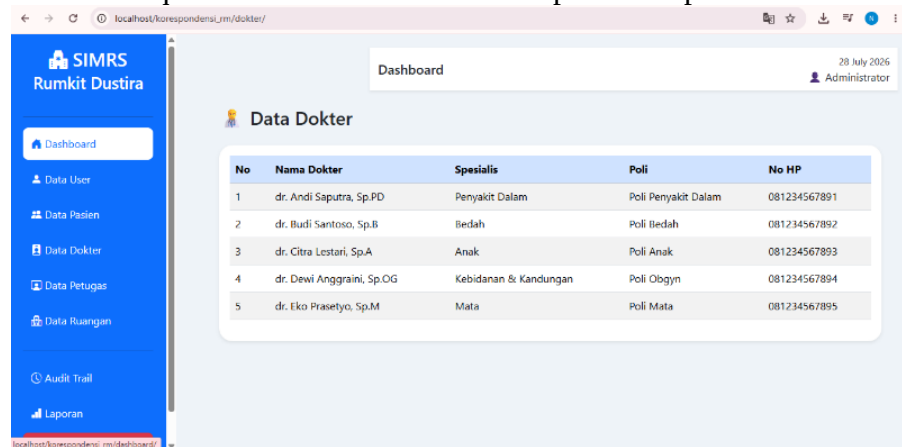


Figure 9. Patient Data Page

Physician Data Page

The Physician Data page provides storage and management of physician information, including physician name, specialty, clinic, and telephone number. This page helps users obtain physician information required in medical record correspondence processes.



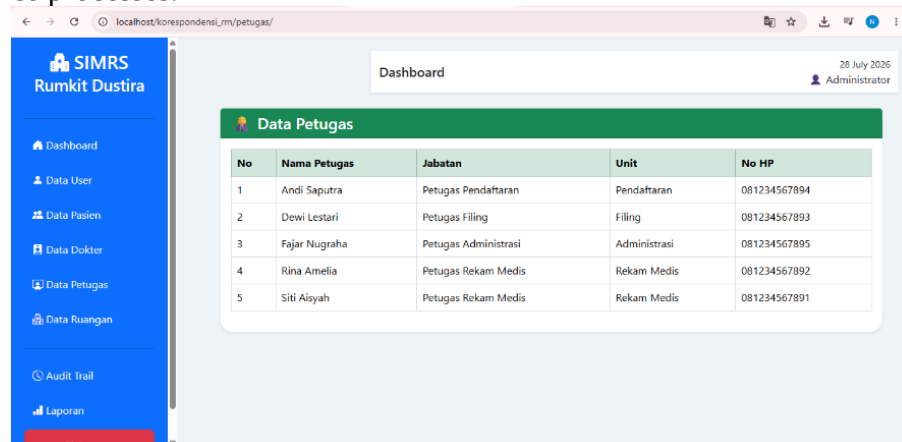
The screenshot shows the 'Data Dokter' (Physician Data) page. The sidebar on the left contains the following menu items: Dashboard, Data User, Data Pasien, Data Dokter, Data Petugas, Data Ruangan, Audit Trail, and Laporan. The main content area displays a table with the following data:

No	Nama Dokter	Spesialis	Poli	No HP
1	dr. Andi Saputra, Sp.PD	Penyakit Dalam	Poli Penyakit Dalam	081234567891
2	dr. Budi Santoso, Sp.B	Ibedah	Poli Ibedah	081234567892
3	dr. Citra Lestari, Sp.A	Anak	Poli Anak	081234567893
4	dr. Dewi Anggraini, Sp.OG	Kebidanan & Kandungan	Poli Obgyn	081234567894
5	dr. Eko Prasetyo, Sp.M	Mata	Poli Mata	081234567895

Figure 10. Physician Data Page

Officer Data Page

The Officer Data page is used to manage officer information required in medical record correspondence processes.



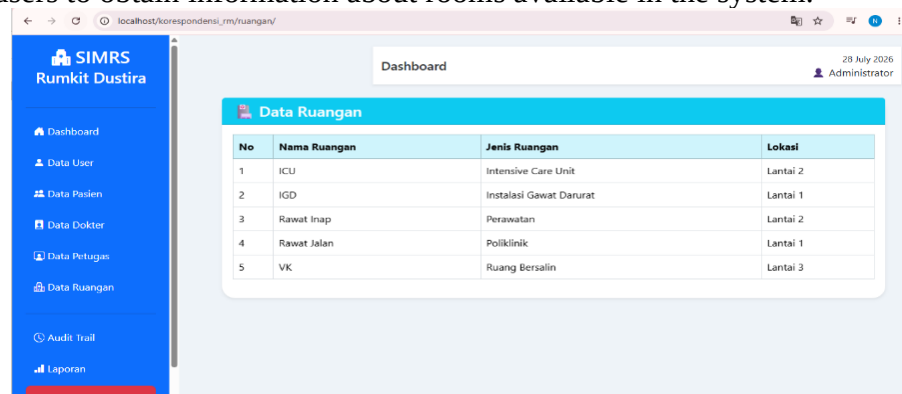
The screenshot shows the 'Data Petugas' (Officer Data) page. The sidebar on the left contains the following menu items: Dashboard, Data User, Data Pasien, Data Dokter, Data Petugas, Data Ruangan, Audit Trail, and Laporan. The main content area displays a table with the following data:

No	Nama Petugas	Jabatan	Unit	No HP
1	Andi Saputra	Petugas Pendaftaran	Pendaftaran	081234567894
2	Dewi Lestari	Petugas Filing	Filing	081234567893
3	Fajar Nugraha	Petugas Administrasi	Administrasi	081234567895
4	Rina Amelia	Petugas Rekam Medis	Rekam Medis	081234567892
5	Siti Aisyah	Petugas Rekam Medis	Rekam Medis	081234567891

Figure 11. Officer Data Page

Room Data Page

The Room Data page displays the list of rooms together with their types and locations, making it easier for users to obtain information about rooms available in the system.



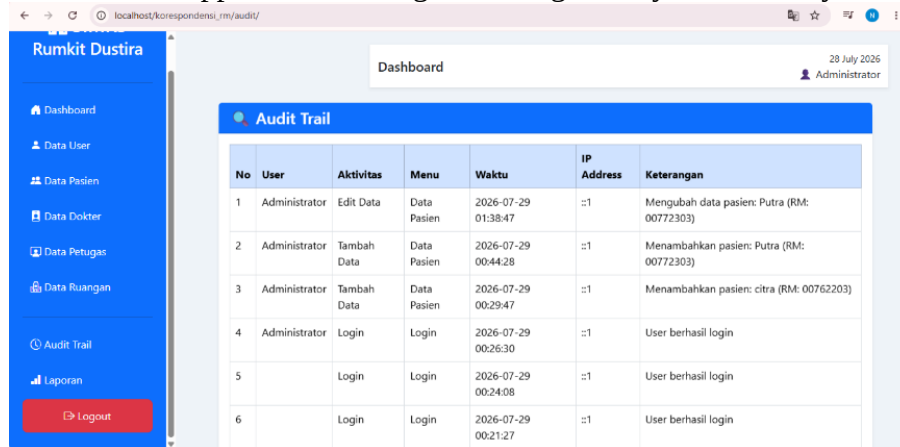
The screenshot shows the 'Data Ruangan' (Room Data) page. The sidebar on the left contains the following menu items: Dashboard, Data User, Data Pasien, Data Dokter, Data Petugas, Data Ruangan, Audit Trail, and Laporan. The main content area displays a table with the following data:

No	Nama Ruangan	Jenis Ruangan	Lokasi
1	ICU	Intensive Care Unit	Lantai 2
2	IGD	Instalasi Gawat Darurat	Lantai 1
3	Rawat Inap	Perawatan	Lantai 2
4	Rawat Jalan	Poliklinik	Lantai 1
5	VK	Ruang Bersalin	Lantai 3

Figure 12. Room Data Page

Audit Trail Page

The Audit Trail page displays the history of user activities, such as login, data additions, and data changes. This feature supports monitoring and strengthens system security and accountability.



No	User	Aktivitas	Menu	Waktu	IP Address	Keterangan
1	Administrator	Edit Data	Data Pasien	2026-07-29 01:38:47	±1	Mengubah data pasien: Putra (RM: 00772303)
2	Administrator	Tambah Data	Data Pasien	2026-07-29 00:44:28	±1	Menambahkan pasien: Putra (RM: 00772303)
3	Administrator	Tambah Data	Data Pasien	2026-07-29 00:29:47	±1	Menambahkan pasien: citra (RM: 00762203)
4	Administrator	Login	Login	2026-07-29 00:26:30	±1	User berhasil login
5		Login	Login	2026-07-29 00:24:08	±1	User berhasil login
6		Login	Login	2026-07-29 00:21:27	±1	User berhasil login

Figure 13. Audit Trail Page

Report Page

The Report page displays and prints medical record correspondence reports based on data managed in the system. This feature helps users obtain information rapidly and in a structured format.

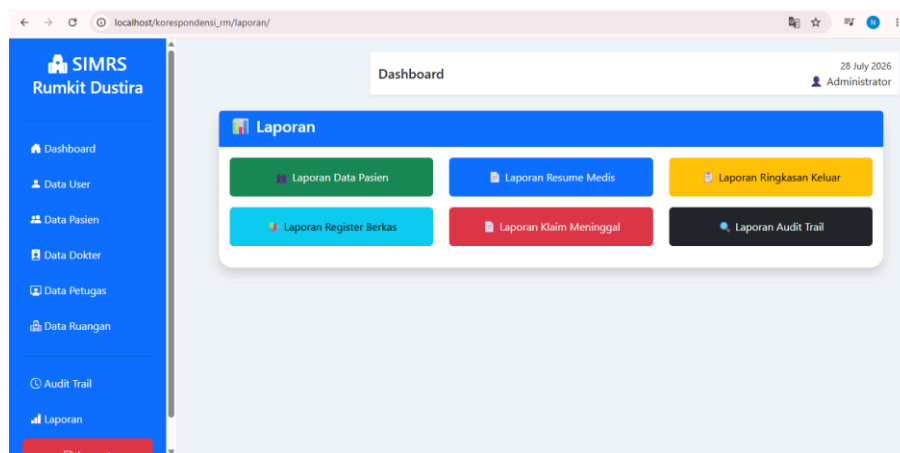


Figure 14. Report Page

Black Box Testing

System testing was conducted using Black Box Testing to determine whether each function of the web-based Medical Record Correspondence Information System with the Audit Trail feature operated according to user requirements. Testing focused on each main menu and function by comparing the system output with the expected result.

Table 1. Black Box Testing Results

No.	System Feature	Test Scenario	Expected Result	Status
1	Login	User enters a correct username and password	System successfully opens the dashboard according to access rights	Valid
2	User Data	Administrator adds, edits, and deletes user data	Changes to user data are successfully stored in the system	Valid
3	Patient Data	Medical record officer enters and updates patient data	Patient data are stored and can be displayed again	Valid
4	Medical Resume	Medical record officer enters medical resume data	Medical resume data are successfully stored in the database	Valid
5	Discharge Summary	Medical record officer manages patient discharge-summary data	Discharge-summary data are successfully stored	Valid

6	Death Claim	Medical record officer enters and manages death-claim data	Death-claim data are successfully stored	Valid
7	File Register	Medical record officer records borrowing and return of medical record files	File status is successfully updated according to the process	Valid
8	Audit Trail	System automatically records each user activity	User activity history is stored in the Audit Trail menu	Valid
9	Report	User displays and prints a report	Report is successfully displayed and ready to print	Valid
10	Logout	User selects the logout menu	System ends the session and returns to the login page	Valid

Source: Research Results (2026).

Based on the Black Box Testing results in Table 1, all system features obtained valid status and operated according to their intended functions. These results indicate that data-management processes and the Audit Trail feature can be used properly to record user activities, thereby supporting security and supervision of data management.

Discussion

Medical Record Correspondence Management

The findings show that the web-based Medical Record Correspondence Information System can support more structured correspondence management at Dustira Level II Hospital. Processes previously performed manually can be carried out through the system, making data management faster and easier.

Problems and System Requirements

The main problem identified was the continued use of paper documents for medical record correspondence, causing storage and retrieval to require additional time. Based on this problem, the identified system requirements include management of user data, patient data, physician data, medical resumes, discharge summaries, death claims, file-loan registers, reports, and user-activity records.

System Design

The design stage was based on identified requirements and used a Flowmap, Context Diagram, DFD Level 1, and ERD. The Flowmap describes process sequences, the Context Diagram describes interactions between the system and users, the DFD describes data flows, and the ERD describes relationships among database entities.

System Features and Database Integration

The developed system provides main menus for users, patients, medical resumes, discharge summaries, death claims, file registers, and reports. All data are stored in a database, facilitating retrieval, updating, and management of medical record documents.

Audit Trail as the Main System Advantage

The principal advantage of this system is the Audit Trail feature, which automatically records each user activity. This feature enables administrators to supervise system users, strengthen data security, and provide an activity history that can be used as evidence of accountability when data changes occur.

Functional Testing

Black Box Testing showed that all system functions operated as expected. Each feature could be used properly, and no errors affecting the main data-management processes were identified during functional testing.

Comparison with Previous Studies

The results are consistent with Silia et al. (2024), who showed that a web-based medical record information system can support document management and improve service effectiveness. Hermawan et al. (2024) likewise reported that a web-based medical record information system can facilitate data retrieval and reporting. The present study extends these findings by integrating medical record correspondence functions with an Audit Trail for automatic activity recording.

Operational Benefits

The web-based implementation provides convenience because processes are computerized. This approach can help reduce recording errors, accelerate service processes, and improve efficiency in medical record correspondence management.

Overall Findings and Novelty

Overall, the developed system meets the identified user requirements for medical record correspondence management. The integration of the Audit Trail means that the system not only facilitates data management but also strengthens security, transparency, and accountability for every user activity. The novelty of this study lies in integrating correspondence functions—medical resumes, discharge summaries, death claims, file-loan registers, and reporting—with automatic user-activity logging in a single web-based system for the medical record unit.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on the study findings, a web-based medical record correspondence system was successfully designed and implemented to support more effective document management. The system supports structured management, storage, and retrieval of documents and is equipped with an Audit Trail feature that records all user activities.

Black Box Testing showed that all main functions operated according to user requirements. The login function, data management, file register, medical resume, discharge summary, death claim, Audit Trail, and reporting functions could be used properly, thereby supporting more accurate and secure data management.

The implementation of this system is expected to improve the efficiency of medical record officers, reduce recording errors, and facilitate monitoring of activity history through the Audit Trail. Thus, the system can serve as a solution supporting more effective, secure, and well-documented medical record correspondence management.

Limitations

This study focused on the design, implementation, and functional Black Box Testing of a web-based medical record correspondence system at Dustira Level II Hospital. The study did not quantitatively evaluate processing time, user satisfaction, usability, or long-term operational performance; therefore, the effectiveness of the system in routine implementation should be interpreted within the scope of the design and functional-testing results.

Recommendations

Future implementation should include periodic evaluation, user training, data-backup procedures, security monitoring, and continued maintenance of the Audit Trail. Further studies are recommended to evaluate usability, user satisfaction, processing-time efficiency, information-security performance, and integration with broader electronic medical record or hospital information systems.

Author Contributions

Nasthea Hidayati contributed to research conceptualization, data collection, system analysis, system design, implementation, testing, and manuscript preparation. Falaah Abdussalaam and Irda Sari contributed to supervision, methodological guidance, interpretation of findings, critical review, and manuscript revision. All authors should review and approve the final manuscript before submission.

AI Disclosure Statement

During preparation of this English-language manuscript, ChatGPT by OpenAI was used for translation and academic-language editing. The authors are responsible for reviewing the translated content, verifying its accuracy against the original Indonesian manuscript, and approving the final version before publication.

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REFERENCES

- Algiffary, M. A., Herdiansyah, M. I., & Kunang, Y. N. (2023). Audit keamanan sistem informasi manajemen rumah sakit dengan framework COBIT 2019 pada RSUD Palembang BARI. *Journal of Applied Computer Science and Technology*, 4(1), 19–26. DOI: 10.52158/jacost.v4i1.505. Artikel ini sangat relevan untuk aspek keamanan dan audit sistem.
- Amaliyah, H., Yunus, M., Roziqin, M. C., & Pratama, M. R. (2024). Rancang bangun rekam medis elektronik pelayanan rawat jalan berbasis web. *J-REMI: Jurnal Rekam Medik dan Informasi Kesehatan*, 5(4), 288–298. DOI: 10.25047/j-remi.v5i4.4781.
- Amin, M., Setyonugroho, W., & Hidayah, N. (2021). Implementasi rekam medis elektronik: Sebuah studi kualitatif. *JATISI (Jurnal Teknik Informatika dan Sistem Informasi)*, 8(1), 430–442. DOI: 10.35957/jatisi.v8i1.557.
- Ansori, S. S., Sari, I., & Sufyana, C. M. (2022). Sistem informasi distribusi rekam medis (Studi kasus: RSAU Lanud Sulaiman). *Jurnal Sains dan Informatika*, 8(1), 70–79. DOI: 10.34128/jsi.v8i1.403. Artikel ini sangat sesuai karena membahas monitoring keluar-masuk dan distribusi dokumen rekam medis melalui sistem informasi.
- Aulia, A.-Z. R., & Sari, I. (2023). Analisis rekam medis elektronik dalam menunjang efektivitas kerja di unit rekam medis di Rumah Sakit Hermina Pasteur. *Jurnal Infokes*, 7(1), 21–31. DOI: 10.56689/infokes.v7i1.1028.
- Darsono, D. (2024). Evaluasi rekam medis elektronik RS Bethesda Yogyakarta dalam upaya mendukung percepatan transformasi kesehatan digital. *Journal of Information Systems for Public Health*, 9(1), 20–30. DOI: 10.22146/jisph.91784.
- Dewi, N., & Ricky, A. V. (2025). Analisis penerapan audit trail pada rekam medis elektronik di Rumah Sakit X Jawa Tengah. *Jurnal Ners*, 9(3), 4228–4236. DOI: 10.31004/jn.v9i3.46228. Ini merupakan referensi utama untuk fitur audit trail.
- Fadilah, R. A., Abdussalaam, F., & Yunengsih, Y. (2024). Perancangan sistem informasi konsolidasi integritas rekam medis rawat jalan berbasis web guna menunjang efektivitas pengklaiman BPJS di Rumah Sakit Hermina Arcamanik Bandung. *Jurnal Indonesia: Manajemen Informatika dan Komunikasi*, 5(2), 1921–1937. DOI: 10.35870/jimik.v5i2.818.
- Hermawan, P. P., Abdussalaam, F., & Sari, I. (2024). Perancangan sistem informasi pengolahan data rekam medis elektronik guna menunjang tata kelola pelaporan rawat jalan. *Jurnal*

- Indonesia: Manajemen Informatika dan Komunikasi, 5(3), 2158–2169. DOI: 10.35870/jimik.v5i3.847.
- Hilmy, M. R., Putranto, R. D., Mahadewi, E. P., Setiawan, I., & Shameela, A. (2026). Analisis integrasi sistem informasi rumah sakit dan elektronik rekam medik sebagai respon terhadap Permenkes Nomor 24 Tahun 2022. *Syntax Literate: Jurnal Ilmiah Indonesia*, 11(1), 55–63. DOI: 10.36418/syntax-literate.v11i1.63533.
- Ikawati, F. R. (2024). Efektivitas penggunaan rekam medis elektronik terhadap peningkatan kualitas pelayanan pasien di rumah sakit. *Ranah Research: Journal of Multidisciplinary Research and Development*, 6(3), 282–292. DOI: 10.38035/rrj.v6i3.819.
- Imran, Y. V., Sufyana, C. M., & Setiatin, S. (2021). Perancangan sistem informasi rekam medis pasien rawat jalan berbasis web di RSUD Pasaman Barat. *Explore: Jurnal Sistem Informasi dan Telematika*, 12(2), 153–165. DOI: 10.36448/jsit.v12i2.2077. Artikel ini sangat kuat untuk landasan perancangan web-based medical record information system.
- Ismiyarti, W., & Juliani, E. (2023). Sistem informasi rekam medis puskesmas berbasis web. *JSI (Jurnal Sistem Informasi) Universitas Suryadarma*, 10(2), 251–260. DOI: 10.35968/jsi.v10i2.1092.
- Landina, M., et al. (2023). Rancang bangun sistem tracer medical record pasien rawat jalan berbasis web di Rumah Sakit Umum Prima Medika Denpasar. *Archive of Community Health*, 10(3), 390–397. DOI: 10.24843/ACH.2023.v10.i03.p01.
- Mundok, M. S., Sufyana, C. M., & Suryani, A. I. (2024). Desain formulir informed consent berbasis elektronik guna menunjang efektivitas rekam medis elektronik. *Jurnal Teknologi Sistem Informasi dan Aplikasi*, 7(3), 1090–1101. DOI: 10.32493/jtsi.v7i3.41994. Artikel ini relevan untuk desain dokumen elektronik, autentikasi pengguna, dan keamanan informasi medis.
- Nurhadi, N., & Wulandari, L. (2022). Sistem informasi administrasi rekam medis pada klinik berbasis web menggunakan metode prototipe. *IJCIT (Indonesian Journal on Computer and Information Technology)*, 7(2), 91–102.
- Prabowo, D. W. S., & Triono, J. (2021). Rancang bangun sistem informasi rekam medis berbasis web. *Jurnal Pilar Teknologi*, 6(1), 8–14. DOI: 10.33319/piltek.v6i1.66.
- Putrawansyah, A. P. B., & Sutabri, T. (2024). Analisis keamanan aplikasi rekam medis elektronik menggunakan metode penetration testing pada UPTD RSD Besemah. *Router: Jurnal Teknik Informatika dan Terapan*, 2(4), 1–12. DOI: 10.62951/router.v2i4.268. Artikel ini mendukung pembahasan keamanan aplikasi, autentikasi, akses tidak sah, dan perlindungan data.
- Putri, T. A., Nuraini, A. A., Damayanti, P., Maulana, R., Amalia, R., Aulia, S. N., & Faida, E. W. (2026). Tinjauan literatur: Aspek integrity pada implementasi rekam medis elektronik di fasilitas kesehatan. *Jurnal Kesehatan Tambusai*, 7(1), 1373–1384. DOI: 10.31004/jkt.v7i1.53821. Artikel ini secara langsung membahas integritas data, audit trail, validasi, dan hak akses.
- Rachmawati, E., Karomah, S. F., Swari, S. J., & Hasan, D. A. (2022). Sistem informasi peminjaman dan pengembalian rekam medis rawat inap berbasis web di RSUD Haji Surabaya. *Jurnal Teknologi Informasi dan Multimedia*, 4(1), 54–65. DOI: 10.35746/jtim.v4i1.214.
- Rosid, B. F., & Sitio, S. L. M. (2026). Rancang bangun aplikasi manajemen medical record pasien dengan RESTful API: Optimalisasi efisiensi dan keamanan data klinik. *Journal of Artificial Intelligence and Innovative Applications*, 7(1), 276–287. DOI: 10.32493/joaiia.v7i1.55252.
- Silia, M., Ekamas, S. A. S., & Rizmayanti, A. I. (2024). Implementasi sistem informasi Release of Information (SIROI) rekam medis berbasis web di unit rekam medis & informasi RSGK. *Jurnal Ilmiah Rekam Medis dan Informasi Kesehatan Indonesia*, 1(1), 25–39. Ini salah satu referensi yang paling dekat dengan konsep korespondensi/pelepasan informasi medis.

- Sulastri, I. Y., Syahidin, Y., Gunawan, E., & Sukmawijaya, J. (2023). Rancang bangun sistem informasi surat keterangan kematian pasien rawat inap menggunakan metode Extreme Programming. *Jurnal Teknologi Sistem Informasi dan Aplikasi*, 6(2), 110–124. DOI: 10.32493/jtsi.v6i2.29691. Referensi ini sangat relevan dengan modul korespondensi/surat medis rumah sakit.
- Tasbihah, F., & Yunengsih, Y. (2024). Penerapan rekam medis elektronik dalam menunjang efektivitas kerja perekam medis di Rumah Sakit Hasna Medika Cirebon. *Jurnal Indonesia: Manajemen Informatika dan Komunikasi*, 5(3), 2761–2767. DOI: 10.35870/jimik.v5i3.946.
- Triyono, J., Abdussalaam, F., & Sari, I. (2026). Perancangan sistem informasi pelepasan informasi rekam medis berbasis web di Instalasi Rekam Medis dan TI RSUD Kabupaten Bekasi. *Journal of Information Technology Student*, 4(2).