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Literature Review: The Effectiveness of Electronic Medical Records (RME) On Hospital Service Quality

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Abstract

Health Information System is a systematic way of managing information at all levels of government to provide healthcare services to the community. In providing services to the community, the health information system is a systemic management of information at all levels of government. Every healthcare facility in Indonesia must maintain electronic medical records based on *Permenkes* No. 24/2022. This shows that the role of Health Information Systems is needed in a health system. However, using electronic medical records (EMR) in Indonesian healthcare facilities must be uniformly and sufficiently implemented, so it cannot provide accurate and timely data. This study aims to assess the implementation of EMR in Indonesian hospitals. This study used the literature review method by reviewing 15 journal articles published between 2016 and 2022, retrieved through Google Scholar. The results showed that several hospitals in Indonesia had implemented EMR; some hospitals have effectively implemented it and benefit from the implementation of EMR, such as improving the efficiency of time and effort in providing health services to patients. Patients also receive better medical care. The study findings aim to encourage all healthcare facilities to optimize the use of EMR to enhance healthcare services.

Keywords: Electronic medical record; Hospital; Benefits

Introduction

The Health Information System is a set of structures that includes data, information, indicators, procedures, tools, technology, and human resources that are interrelated and managed in a coordinated way to direct actions or decisions that are useful in supporting healthy development. Efficient health information systems support decision-making at all levels of health administration, helping achieve the goals and mission of Indonesia's health development. The regulation that mentions health information systems is the Minister of Health of the Republic of Indonesia Number 46 of 2014 concerning Health Information Systems (Permenkes,2014).

The health information system is a way of systematically managing information at all levels of government to provide services to the community (Ambarwati et al., 2020). In providing services to the community, the health information system is a systemic management of information at all levels of government. At all levels of health administration, efficient health information systems provide informed support for decision-making. A health information system was created to realize the goals and mission of Indonesia's health development (Latipah et al., 2021).

Through electronic medical records, the health industry in Indonesia has adopted technology and digitalization. Medical records are records and documents that contain information about patient identity, examination, treatment, and other patient services. In medical facilities, it is implemented as a type of administrative rule. Medical records can be used, among others, as a basis for research, educational resources, care, and treatment of patients. Medical records are converted into electronic medical records or EMRs to keep up with the times. Every health service facility in Indonesia must maintain electronic medical records based on health information systems is the Minister of Health of the Republic of Indonesia No. 24 of 2022 (Permenkes,2014). This shows that health information systems are needed in a health system. However, the use of EMR in Indonesian health service facilities has not been fully distributed and adequate, so it cannot provide accurate and timely data.

In implementing the implementation of EMR in Indonesian health facilities, a literature review must be made to test the implementation of the EMR implementation itself. Supporting variables, advantages, and challenges can be found by looking at the spread of EMR in several hospitals (Rubiyanti,

2023). Implementation of the Minister of Health of the Republic of Indonesia No.24 of 2022 by the government and Indonesian health facilities and services can be maximized if the supporting and inhibiting factors of EMR implementation are analyzed. Implementing the Minister of Health of the Republic of Indonesia Number 24 of 2022 is an example of how health technology develops (Ning Widyastuti et al., 2020). This way, changes to the Indonesian health system will be achieved in the best way possible.

Methods

This research study is based on the literature. The search used the Google Scholar database containing articles published between 2016 and 2022. Database search techniques use relevant keywords to assess electronic medical record information systems. The main keyword used in searching the database is "electronic medical record." The articles used to discuss this literature study cover at least one of the main topics in this literature review regarding the implementation, benefits, and constraints of EMR. In addition, the research articles used come from Indonesia with literature studies and proceedings. In the early stages, 4890 articles were collected. These articles were further identified by filtering the relevance of the articles to the topic of study, so 15 articles were obtained that were relevant to this research of the literature study.

Results

The results of the literature review conducted on fifteen articles are as follows:

Table 1. Articles Synthesis Result

No	Title	Author	Purpose	Method	Results
1.	Evaluation of the Implementation of Outpatient Electronic Medical Records at General Hospital X Bandung in 2021	Revi Rosalinda, Sali Setiatin, Aris Susanto. (2021)	Evaluating the application of outpatient electronic medical records at Regional General Hospital X Bandung	Qualitative analysis with a descriptive approach, through observation, interview, and literature study	The implementation of electronic medical records has not been maximized; there are still problems and deficiencies, including inadequate infrastructure, no special team handling when carrying out RME, and no written SOPs and policies.
2.	Evaluation of the Medical Record Information System at Surakarta City Hospital in Supporting Electronic Health Records	Sri Wahyuningsih Nugraheni. (2017)	Evaluating the medical record information system using the 2008 WHO Health Metrics Network (HMN) model	Qualitative Case Studies	Almost all RME applications have been adequate in terms of human resources and data sources, data management, coordination and leadership, information, dissemination, and utilization of information is adequate. However, in terms of input, process, and output, SIMRS bridges with the Disdukcapil of the Ministry of Internal Affairs so that the data entered and the reports produced are multimedia in nature so that they immediately display internal and external reports without being processed by Microsoft Excel
3.	Evaluation of Electronic Medical Records in the Inpatient Coding Section of K.R.M.T Wongsonegoro Hospital, Semarang City	Septina Dwi Indrawati, Ida Nurmawati, Indah Muflihatin, Syaifuddin. (2020)	Evaluating the implementation of RME using the PIECES method (performance, information, economic, control, efficiency, service)	Qualitative, using observation and interview methods	The application of RME in the inpatient coding section is quite good. However, things must be improved and further developed to avoid errors, regulations, socialization, and user training.
4.	Evaluation of the electronic medical record system at Primasatya Husada	Hayu Ning Widyaastuti, Dony Setiawan Hendyca Putra,	Evaluate RME using the Human Organization Technology	Qualitative by conducting interviews,	The application of RME in the outpatient service section is considered sufficient. Evaluation of RME in terms

	Citra Hospital, Surabaya	Efri Tri Ardianto (2020)	(HOT)-Fit Model evaluation method.	observation, and documentation.	of human, organizational, and technology aspects is sufficient. However, there are several complaints regarding reliability, system security, and the system's ability to process data.
5.	Evaluation of the Use of Outpatient Electronic Medical Records at Husada Hospital with the Technology Acceptance Model	Yati Maryati, Atik Nurwahyuni (2021)	Knowing the characteristic, perceived usefulness, perceived convenience, and behavioral interest in using RME.	Quantitative observational with cross-sectional study approach.	The application of RME is felt to be more efficient in terms of time and effort, and interest in using RME is quite good. However, there are still obstacles, including network errors. The suggestion is the need for overall network repair to reduce system disturbances and back up data regularly and backup servers to avoid problems if a system down occurs.
6.	Evaluation of the Implementation of the Hospital Management Information System (SIMRS) in Outpatient Services at RSUD Dr. Gondo Suwarno Ungaran	Setya Wijayanta, Asharul Fahyadi, Rizal Ginanjar (2022)	Exploring interest information to utilize technology that is influenced by other factors or variables by applying the UTAUT method.	Quantitative by using a cross-sectional approach and analyzed using SmartPLS software.	The application of RME to outpatient services based on the results of testing the model with the UTAUT model is well received, based on the implementation of the UTAUT acceptance model with the conceptual model having a positive but insignificant effect. To increase interest in using SIMRS, it should be carried out in service units/sections and other applications. Conduct socialization and provide training to officers in the use of SIMRS.
7	Evaluation of the Implementation of SIMRS with EUCS (End User Computing Satisfaction) at the Medical Records Installation of Petala Bumi Hospital, Riau Province, in 2021	Sy. Effi Daniati, Haryani Octaria, Mohd. Rinaldi Amartha, Rizki Aprianto (2022)	We evaluate information systems using the End User Computing Satisfaction (EUCS) method.	The research method is done by counseling through planning, implementing, observing, evaluating, and reflecting.	The application of SIMRS seen with the EUCS method seen from the dimensions of content, accuracy, appearance, convenience, and timeliness has helped in carrying out tasks in serving patients precisely and adequately so that patients quickly get treatment from the intended doctor.
8	Electronic Medical Records as a Support for Patient Service Management at Gadjah Mada University Hospital	Rika Andrianai, Dewi Septiana Wulandari, Rizka Siwi Margianti (2022)	Exploring the experiences and benefits users feel of implementing RME in patient care management.	Qualitative with a case study design by conducting face-to-face semi-structured interviews and observation.	The application of RME provides benefits in patient service management, including supporting patient safety, reducing duplication of examinations, continuity of care and service planning, efficiency of patient care, and collaboration. To get more benefits, it is necessary to develop a patient reminder feature, and regular training is needed by SIRS and IT

					installations for new and old staff.
9	Analysis of Hospital Management Information Systems in the Outpatient Installation of Puri Husada Tembilahan Hospital in 2020	Ramadhoni Kusuma Pamungkas (2022)	Analyzing SIMRS at Puri Husada Tembilahan Hospital in 2020.	Descriptive with a qualitative approach	The implementation of SIMRS at Puri Husada Tembilahan Hospital has not run optimally because the existing SOPs and the lack of skills from existing human resources have not been implemented. Therefore, there is a need for socialization with the SOP that has been made and training for HR on the use of SIMRS.
10.	Evaluation of the Medical Record Information System at Brayat Minulya Hospital	Nurhayati, Sri Widodo, Antonius Suhartono (2021)	Evaluating the system using the PIECES method.	Descriptive with a cross-sectional approach by conducting interviews and observations	The application of the medical record information system, which is assessed based on variables from the performance and security aspects, is good but lacking in terms of the accuracy of the information and reports produced.
11	User Acceptance of the Medical Record Management Information System (SIMRM) at Tebet Hospital, South Jakarta, in 2021	Anggi Alpiyani, Nanda Aula Rumana, Daniel Happy Putra, Laela Indwati (2022)	Find out how users accepted SIMRS at Tebet Hospital, South Jakarta, in 2021.	Quantitative descriptive using the Technology Acceptance Model (TAM).	The application of SIMRM in Tebet Hospital, South Jakarta, can be seen from the 5 TAM constructs accepted by users. As many as 75% and 25% of users do not accept using SIMRM in their work.
12	Analysis and Design of Electronic Medical Record Systems at Premagana Hospital	Ni Luh Ratnaasih (2016)	Produce detailed things about the needs required by the user (user)	The research method used observation, interviews, and literature studies.	The application of RME still requires accurate data from hospitals. Conducting web-based RME analysis and design it can be done using Use Case Diagrams, Class Diagrams, Activity Diagrams, Sequence Diagrams, and Structure Files.
13	Analysis of Implementation of Hospital Management Information System Utilization (SIMRS) at Tegal Kardinah Hospital	Dedy Setiawan (2016).	Evaluation of Hospital Management Information System (SIMRS)	Quantitative with descriptive methods by conducting interviews, observation, and documentation.	In applying SIMRS at Kardinah Tegal Hospital, not all human resources input data and do not understand SIMRS. So it is necessary to have SIMRS training, the addition and repair of infrastructure, and the preparation of written SOPs and policies from the hospital director regarding the implementation of SIMRS at Kardinah Tegal Hospital.
14.	Evaluation of the Implementation of Hospital Management Information System RSIA Bhakti Persada Magetan Using TAM	Mochamat Bayu Aji, Akbid Muhammadiyah Madiun (2017)	Evaluate the implementation of hospital management information systems, especially in the medical	Methods of research and development by conducting interviews, observations, and questionnaires	Applying SIMRS based on system quality, perception, and convenience with the partial T test significantly affects the application of information systems. Moreover, it can be

			record section using the Technology Acceptance Model (TAM) method.		concluded that the application of SIMRS at Bhakti Persada Hospital is in a suitable category.
15	Analysis of the Satisfaction Level of Electronic Medical Record Users at the Orthopedic and Cardiac Polyclinics of Premier Hospital Surabaya	Eka Wilda Faida, Roihatul Jannah (2019)	Knowing the level of satisfaction of Electronic Medical Record users at the Orthopedic Poly and Cardiac Polyclinics of Premier Hospital Surabaya	Descriptive with cross-sectional research design	The application of RME from research shows that user satisfaction includes ease of access, quality, security, flexibility, efficiency, and connectivity in the Orthopedic poly and cardiac polyclinic at Premier Surabaya Hospital, which is quite good.

Discussion

Application of Electronic Medical Records

The implementation of Electronic Medical Records (EMR) in several hospitals in Indonesia already uses EMR. Several hospitals have problems with the implementation of EMR which has resulted in not being maximized, such as in the RSU Bandung City, the facilities and infrastructure are not adequate for a particular team to handle when carrying out EMR, and there are no written SOP and policies (Rosalinda et al., 2021). In contrast to the Surakarta City General Hospital, almost all applications of EMR have been sufficient in terms of human resources and data sources, data management, coordination and leadership, information, information dissemination, and utilization. Based on the literature review results, private and government-owned hospitals type B and C have implemented EMR quite well.

Type B Education Hospital in Semarang is quite good, especially in the inpatient coding section. However, something still needs to be improved and developed so that errors do not occur, and even user training is needed (Nurhayati et al., 2021). The other type B non-educational hospitals in Semarang have implemented electronic medical records, which are well received but need to conduct outreach and training for users (Wijayanta et al., 2022). In implementing SIMRS at Kardinah Tegal Hospital, not all human resources input data, and not all understand SIMRS; besides training, it is necessary to make written SOP and policies from the director of the relevant hospital. (Setyawan, 2016). Socialization with the SOP that has been made and HR training on the use of SIMRS is needed by Puri Husada Tembilahan Hospital because SIMRS implementation has not run optimally (Pamungkas, 2022)

The application of electronic medical records in other hospitals is also considered to be sufficient based on an evaluation of the legal, organizational, and technological aspects which is sufficient. However, it is necessary to pay attention to system security and the system's ability to process data (Widyastuti et al., 2020). Husada Hospital in implementation of EMR is also felt to be more efficient in time and energy, to reduce system disturbances, and back up data regularly to avoid problems if they occur down the system (Maryati & Nurwahyuni, 2021).

In addition to type B hospitals, type C hospitals have implemented electronic medical records well from a security standpoint but lack the accuracy of the information and reports generated. (Nurhayati et al., 2021). Even in Tebet Hospital, South Jakarta, with type C, for receiving EMR, users accept 75%, and 25% do not receive them in their work. (Widyastuti et al., 2020). The application of EMR at Premagana Hospital still requires accurate data from the hospital, and further analysis and design of EMR need to be carried out. (Ratniasih, 2016).

Another type C hospital that has implemented EMR well is RSIA Bhakti Persada Magetan implementing SIMRS based on the quality of the perceived system and ease of use. (Aji, 2017). Likewise, the Petala Bumi Riau Regional Hospital has implemented EMR so that timeliness has helped carry out tasks, serving patients properly and precisely so that patients quickly get treatment from the intended doctor. (Daniati et al., 2022).

Implementing electronic medical records in other hospitals has provided adequate non-technical and technical facilities. Non-technical facilities include training manuals for users and assistance from IT staff if problems occur in the use of EMR, while technical facilities are in the form of software and hardware (Andriani et al., 2022).

Other hospitals have implemented EMR at Premier Surabaya Hospital and have even identified user satisfaction, including easy access to quality, security, flexibility, efficiency, and good connectivity, especially in the Orthopedic poly and cardiac poly. (Faida &

Jannah, 2019)

Benefits of EMR

The application of EMR provides several benefits for its users. This is felt by all hospitals implementing EMR to increase efficiency and personnel in providing health services to patients (Maryati & Nurwahyuni, 2021). In terms of time, EMR timeliness has helped carry out tasks and serve patients precisely and adequately so that patients quickly get treatment from the intended doctor (Daniati et al., 2022). Through EMR, health services provide users with convenience and satisfaction, including access to quality, security, flexibility, efficiency, and connectivity (Faida et al., 2019).

The application of EMR provides benefits for data that is processed into information to produce internal and external reports (Nugraheni, 2017). EMR is considered more efficient in time and effort and increases the interest of its users. In addition, to get more benefits, it is necessary to develop features (Andriani et al., 2022; Maryati & Nurwahyuni, 2021; Wijayanta et al., 2022). Not only that, EMR helps in carrying out its duties of serving patients precisely and adequately to improve the quality of service (Aji, 2017; Daniati et al., 2022; Faida & Jannah, 2019).

Barriers to the Implementation of RME

Implementing EMR is not as easy as one might imagine, even though many benefits are felt. There are several obstacles to implementing EMR in hospitals. The first obstacle lies in the lack of facilities and infrastructure to support the implementation of EMR. In addition, it is necessary to improve existing infrastructure so that the implementation of EMR runs smoothly (Rosalinda et al., 2021; Setyawan, 2016). There are disruptions to networks and connections, such as at Husada Hospital (Maryati et al., 2021). There are also complaints regarding system security and the system's ability to process data which is a problem in type B private hospitals (Widyastuti et al., 2020).

The second obstacle is the absence of a unique team, written policies, and related SOP (Indrawati et al., 2020; Pamungkas, 2022; Rosalinda et al., 2021). It is necessary to make written SOPs and policies from the hospital director regarding the implementation of EMR (Setyawan, 2016). At Hospital X Bandung, the SOP for implementing EMR is still being drafted by management (Rosalinda et al., 2021). In this case, there must be written policies and clear SOP not to confuse the users involved.

In this case, there must be written policies and clear SOP not to confuse the users involved. (Pamungkas, 2022; Setyawan, 2016). Even Bandung's X general hospital lacks human resources to implement EMR (Rosalinda et al., 2021). Even though the implementation of EMR is very dependent on HR competence in information technology, the implementation of EMR is not optimal. For example, at Petala Bumi Hospital, Riau Province, human resources are very helpful in carrying out their duties to serve patients adequately and appropriately so that patients quickly get treatment from the intended doctor. (Daniati et al., 2022)

Recommendations

There are several recommendations to minimize obstacles in implementing RME. The first problem is the lack of facilities and infrastructure. In this case, hospitals must realize the importance of allocating procurement costs and routine infrastructure maintenance according to the needs of implementing electronic medical records. In addition, hospitals can maximize the fulfillment of needs and assess the readiness to implement RME. Finally, hospitals can cooperate with procuring goods and services on the advice of technology and informatics experts to meet the required infrastructure facilities.

Also, to overcome network disruptions that are errors, it is necessary to maintain the server regularly and not forget to back up data to minimize the occurrence of unwanted things, such as data loss due to malware viruses.

Further problems related to the absence of SOPs are also a concern for hospital service management implementing RME. Therefore, the hospital management and medical record personnel formed a team to make official written guidelines on using RME. This guideline contains the components of RME, the benefits of RME, the procedures for implementing RME, and other aspects of the law. After that, the RME guidelines can be socialized to the relevant RME users. When implementing RME, there is input or additional features; please regularly coordinate with the team that has been formed.

The last problem concerns HR, specifically HR, who do not understand and input data optimally. When RME is implemented in a hospital, training should be held first as a form of user recognition. So that users become aware of the purpose, purpose, and benefits of implementing RME. In addition, users understand the urgency of RME. Training can be carried out periodically and gradually. Training is carried out by inviting experts who understand the RME so that the implementation of RME can run smoothly without a hitch.

Conclusion

The application of EMR in several hospitals in Indonesia has been implemented; several hospitals have implemented it properly and have benefited from the implementation of EMR, such as increasing the efficiency of time and personnel in providing health services to patients. Patients also get convenience in getting treatment from doctors. In addition, implementing EMR also benefits the resulting internal and external report data to be faster, more precise, and more accurate.

In implementing EMR, there are also obstacles, such as a lack of facilities and infrastructure to support the implementation of EMR and disruption to networks or connections in hospitals. Other obstacles include the absence of a unique team, written policies, and related SOP. Several human resources have not inputted data because they do not understand SIMRS.

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Author Contribution and Competing Interest

Contributing authors for this research are interested in collecting and analyzing data and compiling the manuscript.

References

Aji, M. B. (2017). Evaluasi Penerapan Sistem Informasi Menejemen Rumah Sakit RSIA Bhakti Persada Magetan Menggunakan TAM. *Duta.Com ISSN: 2086-9436*, *12*(April), 31–56.

Ambarwati, R. N., Wahyuni, N., & Syamiyah, N. (2020). Analisis Pelaksanaan Sistem Informasi Kesehatan Di Rumah Sakit BhayanGKARA POLDA BANTEN. *Jurnal JOUBAHS*, *2*.

Andriani, R., Wulandari, D. S., & Margianti, R. S. (2022). Rekam Medis Elektronik sebagai Pendukung Manajemen Pelayanan Pasien di RS Universitas Gadjah Mada. *Jurnal Ilmiah Perekam Dan Informasi Kesehatan Imelda (JIPIKI)*, *7*(1), 96–107. https://doi.org/10.52943/jipiki.v7i1.599

Daniati, E., Octaria, H., Rinaldi Amartha, M., & Aprianto, R. (2022). Evaluasi Penerapan SIMRS Dengan Metode EUCS (End User Computing Satisfaction) Di Instalasi Rekam Medis RSUD Petala Bumi Provinsi Riau Tahun 2021. *Community Engagement & Emergence Journal*, *3*(2), 207–212.

Faida, E. W., & Jannah, R. (2019). Analisis Tingkat Kepuasan Pengguna Electronic Medical Record di Poli Ortopedi dan Poli Jantung Rumah Sakit Premier Surabaya. *Seminar Nasional INAHCO (Indonesian Anemia & Health Conference)*, 165–172.

Indrawati, S. D., Nurmawati, I., Muflihatin, I., & Syaifuddin, S. (2020). Evaluasi Rekam Medis Elektronik Bagian Coding Rawat Inap RSUD K.R.M.T Wongsonegoro Kota Semarang. *J-REMI : Jurnal Rekam Medik Dan Informasi Kesehatan*, *1*(4), 614–623. https://doi.org/10.25047/j-remi.v1i4.2164

Latipah, T., Solihah, S., & Setiatin, S. (2021). Pengaruh Rekam Medis Elektronik Terhadap Peningkatan Efektivitas Pelayanan Rawat Jalan di Rumah Sakit X. *Cerdika: Jurnal Ilmiah Indonesia*, *1*(10), 1422–1434. https://doi.org/10.36418/cerdika.v1i10.215

Maryati, Y., & Nurwahyuni, A. (2021). Evaluasi Penggunaan Electronic Medical Record Rawat Jalan Di Rumah Sakit Husada Dengan Technology Acceptance Model. *Jurnal Manajemen Informasi Kesehatan Indonesia*, *9*(2), 190. https://doi.org/10.33560/jmiki.v9i2.374

Ning Widyastuti, H., Setiawan Hendyca Putra, D., Tri Ardianto, E., Kesehatan, J., & Negeri Jember, P. (2020). *Evaluasi Sistem Elektronik Rekam Medis Di Rumah Sakit Primasatya Husada Citra Surabaya*.

Nugraheni, S. W. (2017). Evaluasi Sistem Informasi Rekam Medis di RSUD Kota Surakarta dalam Mendukung Rekam Kesehatan Elektronik. *Indonesian Journal On Medical Science*, *4*(1), 2355–1313.

Nurhayati, Widodo, S., & Suhartanto, A. (2021). Evaluasi Sistem Informasi Rekam Medis Di Rumah Sakit Brayat Minulya. *Nusantara Hasana Journal*, *1*(4), 79–95.

Pamungkas, R. K. (2022). Analisis Sistem Informasi Manajemen Rumah Sakit Pada Instalasi Rawat Jalan Di Rsud Puri Husada Tembilahan Tahun 2020. *Jurnal Olahraga Dan Kesehatan*, *1*(1), 40–54.

Peraturan Menteri Kesehatan Indonesia Nomor 46 Tahun 2014 tentang Sistem Informasi Kesehatan. (n.d.).

Peraturan Menteri Kesehatan Republik Indonesia Nomor 24 Tahun 2022 tentang Rekam Medis. (n.d.).

Ratniasih, N. L. (2016). Analisa Dan Perancangan Sistem Rekam Medis Elektronik Pada Rs. Premagana. *Semnasteknomedia Online*, *4*(1), 1-4–91.

Rosalinda, R., Setiatin, S., & Susanto, A. (2021). Evaluasi Penerapan Rekam Medis Elektronik Rawat Jalan Di Rumah Sakit Umum X Bandung

Tahun 2021. *Cerdika: Jurnal Ilmiah Indonesia*, *1*(8), 1045–1056. https://doi.org/10.36418/cerdika.v1i8.135

Rubiyanti, S. N. (2023). Penerapan Rekam Medis Elektronik di Rumah Sakit di Indonesia: Kajian Yuridis. *ALADALAH: Jurnal Politik, Sosial, Hukum Dan Humaniora*, *1*, 179–187.

Setyawan, D. (2016). Analisis Implementasi Pemanfaatan Sistem Informasi Manajemen Rumah Sakit (Simrs) Pada Rsud Kardinah Tegal. *Indonesian Journal on Computer and Information Technology*, *1*(2), 54–61.

Widyastuti, H. N., Putra, D. S. H., & Ardianto, E. T. (2020). Evaluasi Sistem Elektronik Rekam Medis di Rumah Sakit Primasatya Husada Citra Surabaya. *J-REMI : Jurnal Rekam Medik Dan Informasi Kesehatan*, *1*(3), 241–246. https://doi.org/10.25047/j-remi.v1i3.2050

Wijayanta, S., Fahyudi, A., & Ginanjar, R. (2022). Evaluasi Implementasi Sistem Informasi Manajemen Rumah Sakit (SIMRS) di Pelayanan Rawat Jalan RSUD dr. Gondo Suwarno Ungaran Menggunakan Metode Unified Theory of Acceptance and Use of Technology (UTAUT). *Jurnal Rekam Medis Dan Informasi Kesehatan*, *5*(1), 12–22. https://doi.org/10.31983/jrmik.v5i1.8277

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