JPPIPA 9(12) (2023)

Jurnal Penelitian Pendidikan IPA

Journal of Research in Science Education

http://jppipa.unram.ac.id/index.php/jppipa/index

Evaluation of Time Constraints for Providing Electronic Medical Record Documents at Murni Teguh Hospital, Medan

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Received: July 14, 2023
Revised: November 28, 2023
Accepted: December 20, 2023
Published: December 31, 2023

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DOI: 10.29303/jppipa.v9i12.4670

Abstract: The impact of errors in storing medical records causes delays for officers in searching for medical record documents so that services at the polyclinic are hampered. It is necessary to control the incidence of incorrect insertion of medical record documents so that the incidence of incorrect insertion of medical record documents can be reduced. Electronic Medical Record (RME) is a form of health information service that is computerized and recorded. Health service facilities that implement RME in an effort to improve the quality and quality of services. This research is a qualitative research, case study design which aims to evaluate the timing of providing electronic medical record documents for outpatients at Murni Teguh Hospital. Determination of research subjects using purposive sampling technique. The research subjects consisted of the Director of Murni Teguh Hospital, the head of the Medical Record Installation as the main informant, the Patient Registration Officer, and 3 medical record staff as triangulation informants. In collecting data, researchers conducted in-depth interviews, direct observation and document studies. Data analysis was carried out using interactive models, data reduction processes, verification and drawing conclusions. In this study, it was found that the time required to provide electronic medical record documents for outpatients at Murni Teguh Hospital was a minimum of 4 minutes, a maximum time of 9 minutes with an average time needed to provide electronic medical record documents was 6.6 minutes. Obstacles encountered are errors during use, as well as HR who still do not understand the use of electronic medical record systems. By providing electronic medical record documents, the work of the patient medical record department becomes more efficient, makes it easier for officers to search for patient medical records and the benefits that patients get are shorter waiting times.

Keywords: Electronic medical record; Evaluation; Obstacle; Provision

Introduction

The impact of errors in storing medical records causes delays for officers in searching for medical record documents so that services at the polyclinic are hampered. Officers also found it difficult to retrieve files that were located at the top of the storage rack because ladders were not provided. Difficulties often occur when the file sought is not on the shelf which results in double numbering because the officer does not know the whereabouts of the patient's medical record (S. D. W. Sari et al., 2021).

Medical records are written and recorded information about identity, anamnses, physical and laboratory determinations, diagnoses of all medical services and actions given to patients and treatment whether they are inpatients, outpatients or those who receive emergency services (Isnaeni et al., 2018).

In Indonesia, the government determines Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records. This regulation is expected to be the latest breakthrough in the security and protection of patient electronic medical record data (Koten et al., 2020).

How to Cite:
Nasution, S. L. R., Siregar, H. H., Adnan, M. C., & Girsang, E. (2023). Evaluation of Time Constraints for Providing Electronic Medical Record Documents at Murni Teguh Hospital, Medan. *Jurnal Penelitian Pendidikan IPA*, *9*(12), 11796–11802. https://doi.org/10.29303/jppipa.v9i12.4670

The medical record must be kept confidential because the contents of the medical record are important patient data which contains personal data, illness, medical history and other diagnoses which are stored in a special medical record storage area (T. P. Sari et al., 2019).

Storage of medical record files aims to (a) facilitate and speed up the retrieval of medical record files that are stored in storage racks, (b) easy to retrieve from storage, (c) easy to return, (d) protect medical record files from the danger of theft, danger of damage physical, chemical and biological. Thus, a storage system is needed by considering the type of facilities and equipment used, the availability of experts and organizational conditions. The requirement for medical record files to be saved is if the filling out of service data on the medical record form sheet has been filled in completely in such a way that a patient's medical history is in chronological order (Kusumah, 2022).

The implementation of electronic medical records can provide great advantages and benefits for basic health care facilities and referral health facilities. Patients will also experience significant benefits due to efficiency in the health service process. For administrative staff, the application of electronic medical records can make it easier to find patient information. Medical and paramedical personnel will find it easier to find patient information which will also speed up clinical decision making such as how to make a diagnosis, plan therapy, minimize the appearance of allergic reactions and administer multiple drugs (Simanjuntak et al., 2019).

Based on the results of an initial survey at Murni Teguh Hospital, problems were found in the implementation of the electronic medical record system where network system disturbances (errors) often occurred. The impact that occurs when the network system is disrupted is that services to patients will be temporarily stopped, because doctors cannot see the patient's medical history or treatment if the patient has already been treated.

From the background explanation above, the researcher is interested in conducting research with the title "Evaluation of Time for Provision of Electronic Medical Record Documents for Outpatient Patients at Murni Teguh Hospital".

Method

This study is a qualitative research with a case study design. The purpose of this study was to evaluate the time constraints in providing electronic medical record documents for outpatients at Murni Teguh General Hospital. Determination of research subjects using purposive sampling technique. The research subjects consisted of the Director of Murni Teguh Hospital, the Director of Medical Services, the Head of the Medical Record Installation as the main informant, the Patient Registration Officer, and 3 medical record officers as triangulation informants. In collecting data, researchers conducted in-depth interviews, direct observation and document studies. The in-depth interview guide contains important points that focus on regulations, human resources, network systems in the administration of electronic medical records, the level of compliance of officers in completing patient medical records, supporting leaders and constraints faced in the policy implementation process. Direct observation was made of the observation process during the provision of electronic medical record documents for outpatients at Murni Teguh Hospital. The document study was carried out by collecting and analyzing data sources that were in the outpatient unit of Murni Teguh Hospital, Medan.

Data analysis was carried out using an interactive model in the form of qualitative analysis presented in descriptive form and accompanied by narration. Data analysis begins with the process of data reduction, verification and drawing conclusions. The researcher validated (checked the validity of the data) on the research findings using data triangulation techniques (comparing data sources). In this study, data triangulation was carried out by comparing field observation data and the results of interviews with triangulation informants, namely 3 medical record officers field facilitators at Murni Teguh Hospital.

Result and Discussion

Result

The implementation of electronic medical records for outpatients at Murni Teguh Hospital has been carried out based on applicable regulations, where the implementation starts from patient registration, distribution of electronic medical record data, filling in clinical information, processing electronic medical record information, inputting data for financing claims, storing electronic medical records, quality assurance of electronic medical records, transfer of contents of electronic medical records.

Time for Provision of Electronic Medical Record Documents for Outpatient Patients at Murni Teguh Hospital

Based on the results of observations on the provision of electronic medical record documents for outpatients at Murni Teguh Hospital, it can be seen that in the observation of 10 electronic medical records for outpatients at Murni Teguh Hospital, it was found that the minimum time needed to provide electronic medical

record documents was 4 minutes, the maximum time 9 minutes with a total time required of 66 minutes, and the average value of time required in providing electronic medical record documents for outpatients at Murni Teguh Hospital is 6.6 minutes.

Table 1. Observation Results of Provision of Electronic Medical Record Documents for Outpatient Patients at Murni Teguh Hospital

No	Patient Enrollment Time	The time BRME was received at the Service Unit	Time needed (Minute)
1	9.58	10.05	7
2	10.43	10.52	9
3	11.03	11.09	6
4	11.15	11.23	8
5	11.31	11.38	7
6	11.45	11.50	5
7	11.51	11.55	4
8	12.20	12.27	7
9	12.44	12.50	6
10	1.04	1.11	7
Total Time Required			66
Average			6.6
Maximum Required Time			9
Minimum Time Required			4

Source: Pure Teguh RSU Medical Record Primary Data 2023

Obstacles Faced in Provision of Electronic Medical Record Documents for Outpatient Patients at Murni Teguh Hospital

In carrying out the implementation of electronic medical records for outpatients at Murni Teguh Hospital there are still several obstacles encountered, this is justified from the answers to interviews conducted by researchers with informants, with the question What are the inhibiting factors that arise after implementing electronic medical records. Following are the answers from the informants in this study:

Informant 1 stated: "Obstacles that may commonly occur in the implementation of electronic medical records are common in human resources who do not understand the implementation of electronic medical records, inadequate infrastructure and system maintenance costs".

Informant 2 stated: "The obstacle is usually the HR and the system which usually has an error when accessed".

Informant 3 stated: "The electronic medical record system had an error when used".

Informant 4 stated: "So far what usually happens is an error when accessing electronic medical records".

Informant 5 stated: "The inhibiting factor that usually occurs is just an error."

Informant 6 stated: "The inhibiting factors exist in the system such as errors when used".

Informant 7 stated: "The barrier was an error when used".

From the results of the interview answers to the informants, it was concluded that the obstacles in implementing electronic medical records at Murni Teguh Hospital were human resources that were still not optimal in operating electronic medical records and other obstacles such as frequent errors when using electronic medical records.

To find out how often there are obstacles in the use of electronic medical records for outpatients at Murni Teguh General Hospital, researchers conducted interviews with informants. The following are answers from informants about the question of how often there are obstacles in the use of electronic medical records.

Informant 1 stated: "Rarely happens".

Informant 2 stated: "Not too often".

Informant 3 stated: "Rarely happens".

Informant 4 stated: "Rarely happens, because the system is routinely checked".

Informant 5 stated: "Not too often".

Informant 6 stated: "Not too often".

Informant 7 stated: "Very rarely happens".

The conclusion from the results of the informants' answers regarding how oftenObstacles that occur in the use of electronic medical records are that in its implementation the electronic medical record system has problems as described above, but these obstacles are very rare.

However, with obstacles that may rarely occur in the use of electronic medical records, it still has some impacts. The following are the results of interviews with informants about the impact of implementing electronic medical records at Murni Teguh Hospital.

Informant 1 stated: "Usually the impact is like delays in giving medical records to patients".

Informant 2 stated: "Definitely the delay in accessing the patient's medical records, which causes the patient to wait a long time."

Informant 3 stated: "Services are hampered".

Informant 4 stated: "Delayed work in the medical record department".

Informant 5 stated: "Work is constrained, and patients will wait longer".

Informant 6 stated: "Work is hampered and patient waiting times are longer".

Informant 7 stated: "The work of the medical record section is hampered, and patients are waiting for a long time".

If there are obstacles in the implementation of electronic medical records, of course there are obstacles experienced by both medical record workers and

patients. From the results of the informants' answers, it can be concluded that the usual obstacles in the implementation of electronic medical records at Murni Teguh General Hospital can hinder the work of medical record officers in providing patient medical records and also the patient's waiting time is also getting longer.

Benefits of Provision of Outpatient Electronic Medical Record Documents for Murni Teguh Hospital

In practice, the electronic medical record for outpatients at Murni Teguh Hospital has benefits such as reducing patient waiting time and also facilitating the work of the medical record department.

> Informant 1 stated: "The benefits are certainly in terms of faster time efficiency in providing patient medical records".
> Informant 2 stated: "There are certainly many benefits, one of which is that the patient's waiting time is faster, then in terms of work it is also very helpful."
> Informant 3 stated: "The benefits can lighten the workload of the medical record department, and can also shorten the patient's waiting time".
> Informant 4 stated: "Makes work easier, especially for me in the patient medical record section."
> Informant 5 stated: "Lighten the workload of officers".
> Informant 6 stated: "The benefits are to maximize service to patients".
> Informant 7 stated: "It really helps the work of the medical records department and really helps reduce patient waiting time."

From these results it is known that the use of electronic medical records for outpatients at Murni Teguh General Hospital has benefits such as benefits for medical record officers and also benefits for patients where patient waiting time is reduced and the work of the medical record department becomes easier.

With the benefits obtained from the use of electronic medical records at Murni Teguh General Hospital, the implementation must be carried out to the fullest extent possible by the medical records department officers. To find out the extent to which officers comply with completing patient medical records, the following are the answers from informants in this study.

> Informant 1 stated: "So far it is obedient, because in practice the management always evaluates it for disciplinary action".
> Informant 2 stated: "So far it has been compliant".
> Informant 3 stated: "Very compliant, because in its application at Murni Teguh Hospital it has used electronic medical records".
> Informant 4 stated: "Very obedient".
> Informant 5 stated: "Very obedient".
> Informant 6 stated: "Already Compliant".
> Informant 7 stated: "Comply".

Resultsanswers from informants stated that the implementation of electronic medical records had been carried out properly by medical record officers, in accordance with the answers from all informants in which all informants said that officers were obedient in carrying out the use of electronic medical records for outpatients at Murni Teguh Hospital.

Discussion

Time for Provision of Electronic Medical Record Documents for Outpatient Patients at Murni Teguh Hospital

The results of research on the time required to provide electronic medical record documents for outpatients at Murni Teguh General Hospital are the results of the minimum time required for providing electronic medical record documents is 4 minutes, the maximum time is 9 minutes with a total time required of 66 minutes, and the average time 6.6 minutes needed to provide electronic medical record documents for outpatients at Murni Teguh General Hospital.

According to Law 129 of 2008 concerning Hospital Minimum Service Standards, it takes less than or equal to 6 to 10 minutes to provide medical record documents for outpatient care (<10 minutes) until the medical record file is found by an officer or until it is available. From the results of research conducted at Murni Teguh Hospital, it can be concluded that the provision of electronic medical records for outpatients at Murni Teguh Hospital is in accordance with Law 129 of 2008 concerning Minimum Hospital Service Standards wherein the implementation of Murni Teguh Hospital can provide patient medical records with average time 6.6 minutes.

Electronic medical record systems can be in the form of: electronic systems developed by the Ministry of Health of the Republic of Indonesia, electronic systems developed by health care facilities themselves, electronic systems developed by Electronic System Operators (PSE) who have been registered as Electronic System Operators (PSE) on the health sector at the Ministry of Communication and Information of the Republic of Indonesia. The electronic system used in the administration of electronic medical records must have compatibility capability (the suitability of one electronic system with another electronic system) and/or interoperability (the ability of different electronic systems to be able to work in an integrated way to communicate or exchange data with one or more other electronic systems (Erviana et al., 2019; Fajariani et al., 2020).

From the results of interviews with informants in this study, the flow of electronic medical records at

Murni Teguh Hospital is in accordance with the provisions of the Ministry of Health whereby the flow of electronic medical records at Murni Teguh Medan Hospital begins with patient registration, distribution of electronic medical record data, filling in clinical information, processing medical record information. electronics, data entry for financing claims, electronic medical record storage, electronic medical record quality assurance, transfer of electronic medical record contents.

Obstacles Faced in Provision of Electronic Medical Record Documents for Outpatient Patients at Murni Teguh Hospital

The results of research on the obstacles encountered in providing electronic medical record documents for outpatients at Murni Teguh Hospital can be seen that the results of interviews with informants concluded that the obstacle in implementing electronic medical records at Murni Teguh Hospital was human resources that were still not optimal in operating medical records. electronics and other obstacles such as the frequent occurrence of errors when using electronic medical records.

In this case, it is in line with the research conducted by Sari and Trisna, medical record officers who have never attended training, especially for medical record officers who do not have basic medical records, so officers do not have developed insights about medical records and do not have sufficient knowledge about medical records (Nurbaya et al., 2020; Wardani et al., 2022).

Obstacles that are commonly encountered in the implementation of electronic medical records, of course there are obstacles experienced by both medical record officers and patients, constraints that commonly occur in the implementation of electronic medical records at Murni Teguh Hospital can hinder the work of medical record officers in providing patient medical records and also time Waiting for patients is also getting longer. However, these problems rarely occur because in practice the management of Murni Teguh General Hospital routinely evaluates the implementation of electronic medical records.

If the government is serious about making RME the key to improving the quality of hospital services, it is necessary to form a team that seriously formulates the direction of developing RME. Considering that most hospitals in Indonesia have the classic problem of limited funds, the team can formulate a standard public domain RME software model if necessary using open source based applications. This team also has to design a legal umbrella that guarantees the validity of medical record information in electronic form which of course involves aspects of security, confidentiality and privacy of medical information.

Benefits of Provision of Outpatient Electronic Medical Record Documents for Murni Teguh Hospital

The results of research on the benefits of providing outpatient electronic medical record documents for Murni Teguh Hospital note that the use of electronic medical records for outpatients at Murni Teguh Hospital has benefits such as benefits for medical record officers and also benefits for patients where patient waiting time is less and also the work of the medical record section becomes easier.

Medical records are the foundation in the delivery of medical services. This is because the medical record is an embodiment of written medical secrets. That is, the medical record contains data regarding the patient's identity, health services and medical services that have been provided to patients (among which includes examination, treatment, actions and other services that have been given to patients) (Maliang et al., 2019; Putri et al., 2022).

The benefits of medical records, often abbreviated as "ALFRED", include: Administrative (the contents of the medical record describe the actions, powers and responsibilities of medical personnel); Legal (the contents of the medical record can be used as evidence in the law enforcement process); Financial (the contents of the medical record can be used as the basis for determining the cost of medical services); Research (the contents of medical records can be used as research materials for the development of science and technology); Education (the contents of medical records can be used as learning materials or references); Documentation (the contents of the medical record can be used as documentation for medical actions that have been carried out on patients) (Siswati et al., 2019).

The Indonesian government's efforts to increase the availability and quality of basic and referral health facilities in facing the era of disruption include implementing a strategy of expanding the scope and development of telemedicine services, digitizing medical records and online medical records, flying health care services and island clusters, as well as system development. electronic medical records that support the exchange of patient medical resume data between hospitals) (Yuliana, 2018). It is stated in the Minister of Health of the Republic of Indonesia Number 21 of 2020 that in the strategic plan of the Ministry of Health the target for 2024 is for referral health service development activities, the percentage of hospitals implementing integrated electronic medical records (RME) reaches 100%.

Hospitals are required to improve the quality of health services by utilizing current technological developments in order to compete well. One of these

technological developments is the use of electronic medical records/RME (T. P. Sari et al., 2017).

Conclusion

Based on this study, it can be concluded that the average time for providing electronic medical record documents for outpatients at Murni Teguh Public Hospital is 6.6 minutes. Obstacles encountered in the provision of electronic medical record documents for outpatients at Murni Teguh Hospital were errors during use, and human resources who still did not understand the use of the electronic medical record system, but these obstacles were always evaluated by the management of MurniTeguh Hospital. It is recommended that Murni Teguh Hospital provide routine training for electronic medical record officers so that the skills of electronic medical record personnel can help the implementation of electronic medical records properly.

Acknowledgments
Thank you to all parties who have helped in this research so that this article can be published

Author Contributions
All authors contributed to writing this article.

Funding
No external funding.

Conflicts of Interest
No conflict interest.

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