



Obstacles To The Implementation Of Electronic Medical Records On Outpatient Registration Services At Hospital X Bandung

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Abstract : Hospitals frequently struggle to deliver services that live up to patient expectations, particularly when it comes to medical records officers working in the outpatient registration department. The purpose of this study is to determine the barriers to RS X's outpatient registration process's use of electronic medical records. Descriptive qualitative methodology is employed, and strategies for gathering data include interviews and observation. The fishbone method was employed to determine the root cause of the issues that impeded this investigation. The findings demonstrated that human issues, such as a shortage of IT staff and a lack of knowledge of electronic medical record systems, are among the challenges facing the adoption of electronic medical records. One financial consideration is the scarcity of cash for the use of electronic health records. Lack of infrastructure and facilities is one example of a material factor. Machine factors include server and internet network interference, as well as recurrent problems in the SIMRS program while bridging data with BPJS. Efforts include hiring more IT officers, providing officers with training, maintaining and upgrading the network, and updating computers to the newest models. Furthermore, to optimize its use in the medical record unit—particularly in the outpatient registration department—the SIMRS application must be redesigned.

IndexTerms - Barriers, Implementation, Electronic Medical Records, Fishbone.

I. INTRODUCTION

A person's health is one of the most crucial aspects of who they are since they cannot pursue all of their interests if they are ill. The World Health Organization (WHO) claims. A state of perfect health is one that is devoid of illness or impairment but encompasses social, mental, and physical well-being. No matter one's color, religion, political affiliation, or socioeconomic standing, everyone has the fundamental right to health (Faradiba, 2022).

Hospitals are healthcare facilities that offer all medical services, including emergency, inpatient, and outpatient care (Permenkes RI, 2020). Hospitals are also important facilities in public services, especially in the health sector, the main goal is to provide treatment, healing, and recovery to patients, namely through emergency, outpatient and inpatient services (Setyaningtyas & Wahab, 2021).

A number of countries, including Indonesia, have made very rapid progress, one of which is the use of electronic-based medical records. According to Permenkes Number 24 of 2022 Article 3 paragraph 1 concerning the implementation of Electronic Medical Records which regulates that every health service facility in Indonesia is required to use Electronic Medical Records made with a digital system and intended for all health facilities (Permenkes RI, 2022).

Electronic medical records are used by healthcare organizations to enhance patient satisfaction, enhance services, increase documentation accuracy, lower technological errors, and expedite patient data access. Health professionals can use the advantages of Electronic Medical Records to better effectively organize treatment follow-up and fill in patient health data information in an effort to attain the best possible level of public health (Risnawati & Purwaningsih, 2024).

The first step in receiving services from the hospital is patient registration. Hospitals must offer medical services of a certain caliber, one of which is the outpatient registration section (Saputra et al., 2020). In spite of this, hospitals frequently encounter difficulties when their services fall short of what patients require, particularly when medical record officers handle outpatient registration (Purba, 2019).

According to earlier study, there are still a number of issues with the adoption of electronic medical records, including frequent system mistakes, inexperienced officers, network outages, and a shortage of officers with access to learning technology. It is crucial to carry out a health assessment of service facilities that have adopted electronic medical records in order to address the several issues that result from this deployment. One helpful technique for determining how much a system is being used by its users is system evaluation (Sari Dewi & Silva, 2023).

According to the findings of additional research, there are still a number of challenges with the implementation of electronic medical records. These challenges are particularly severe during peak hours or when the system is overworked due to high usage, which can cause errors, slow down the system, and prevent data entry from being saved. Furthermore, prior to the data being stored, there is a loss of data access during a power outage, which naturally severely impairs patient care (Amin et al., 2021).

Electronic medical records have been deployed by Hospital X in the city of Bandung from early January 2024, according to the results of observations. The fishbone method is used in this study to determine issues and roadblocks related to the adoption of electronic medical records. The fishbone categories utilized in this study are man, money, material, and machine in order to delve deeper into the causes and consequences of these barriers. The absence of IT staff to handle the system when it encounters technical issues and officers' ignorance of the electronic medical record implementation system are man-made barriers to the adoption of electronic medical records. The budgetary constraint that exists for the use of electronic medical records is the financial barrier. Material considerations that create obstacles include the absence of infrastructure and amenities like fans in the outpatient registration unit. The final barrier based on the machine factor is that, in addition to frequent issues with the internet network and servers, there are frequently mistakes in the SIMRS (morbis) program when bridging data with BPJS.

Given the context of the aforementioned issues, the author is motivated to elevate the title. "OBSTACLES TO THE IMPLEMENTATION OF ELECTRONIC MEDICAL RECORDS ON OUTPATIENT REGISTRATION SERVICES AT HOSPITAL X BANDUNG" .

II. RESEARCH METHODOLOGY

This study employed a qualitative approach using a descriptive methodology. The study technique known as qualitative research is employed to investigate our understanding of social or human phenomena. The objective is to produce a detailed and intricate description that is comprehensible. This study typically takes place in a natural setting and has an emphasis on gathering in-depth opinions from pertinent informants (Adlini et al., 2022). The fishbone diagram method was employed by the researcher to determine the root cause of the issue. This diagram uses a structure that resembles a fishbone to show the cause-and-effect relationship of a problem. The researcher used the fishbone analysis method to evaluate the problem's root cause after it had been identified. Interviews and observations of resource people, such as the head of medical records and pertinent officers, particularly those at the outpatient registration unit, were used as data collection methods in this study.

III. RESULTS AND DISCUSSION

• Barriers to Hospital X Bandung Outpatient Registration Services' Use of Electronic Medical Records

Researchers found a number of barriers to the use of electronic medical records based on their observations and interviews. The categories utilized in this study—man, money, material, and machine—are represented in a fishbone diagram that presents the findings, as depicted in picture 1.

• Obstacles that occur in the implementation of electronic medical records at Hospital X Bandung are based on the man factor.

Based on the researcher's interview results, there are two main issues: first, there are not enough IT officers to handle system issues when they arise; second, there are not enough human resources available, which can lead to officers taking on more work than they can handle, which will naturally lower their performance. The second problem is officers' lack of awareness regarding the adoption of electronic medical records; thus, this is a factor that hinders the deployment of electronic medical records. Naturally, this significantly slows down the process of integrating electronic medical records. If there is a technical issue with the system or an error occurs when registering a patient, the officer must be perplexed about how to resolve it and the registration procedure gets drawn out.

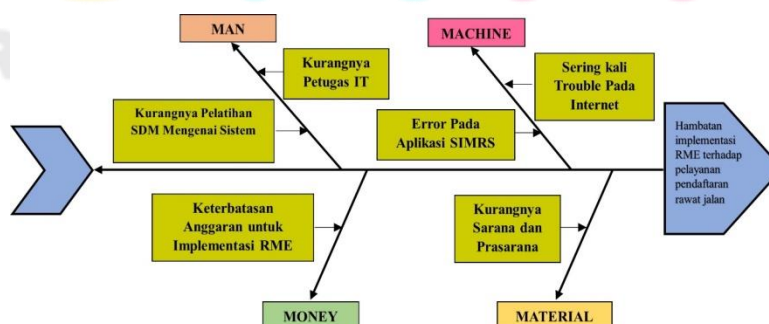


Figure 1. Analysis of Barriers to Implementing Electronic Medical Records using fishbone analysis

• Obstacles that occur in the implementation of electronic medical records at Hospital X Bandung based on the money factor

One of the main financial barriers to the implementation of RME at Hospital X is the restricted budget available for the adoption of electronic medical records (EMRs). Researchers' observations and interviews have revealed that there is still a small

budget or amount of money. Because the implementation of RME requires significant financial outlays in addition to high operational and maintenance costs, a lack of available budget may result in limited IT infrastructure that supports the implementation of RME. This could lead to a decline in service quality, particularly in the outpatient registration unit.

- **Obstacles that occur in the implementation of electronic medical records at Hospital X Bandung are based on material factors.**

The absence of infrastructure and amenities is a barrier in this regard. Although the conditions in the outpatient unit at Hospital X are actually quite adequate, the outpatient registration unit in particular appears to be a new building based on the results of interviews and observations, and the infrastructure and facilities needed to fully implement RME have not been met. Because of the close relationship between this infrastructure and the health facility as well as the degree of patient happiness, the better the infrastructure or amenities offered, the more satisfied patients are with the services.

- **Obstacles that occur in the implementation of electronic medical records at Hospital X Bandung based on machine factors**

When bridging data with BPJS, faults in the SIMRS (morbis) application and issues with the internet network are common obstacles based on this machine aspect. Researchers observed and conducted interviews, and the findings indicated that there are challenges with implementing electronic medical records (RME). These include frequent mistakes or malfunctions with data storage after the officer has completed entering BPJS patient information into the SIMRS system. Officers are forced to manually construct a BPJS patient SEP by opening the V-claim program, and there are still issues with the network, such as frequent disconnections, slow loading times, and problems that necessitate repeated reloading. Officer performance is undoubtedly being severely hampered by this circumstance, which is also making patient wait times longer.

- **Efforts are made to overcome obstacles to the implementation of electronic medical records for outpatient registration services at Hospital X Bandung**

After determining what planning might be done to solve the issue, the researcher suggested hiring more IT officers with the right kind of training. In order for all officers to comprehend the usage of electronic medical records, it is also important to train them, particularly in the outpatient registration unit. This can be done by having regular training sessions or socializing sessions regarding the Morbis system at least once every three months. Third, upgrade PCs to the newest specs and perform network maintenance and upgrades. In order to optimize its implementation in the medical record unit—particularly in the outpatient registration section—it is imperative that the SIMRS application be redesigned.

IV. CONCLUSION

The author draws a number of conclusions from the above discussion regarding the challenges facing Hospital X Bandung in implementing electronic medical records (RME) for outpatient registration services. These challenges originate from human issues, such as officers' ignorance of the use of electronic medical records and the absence of IT personnel to oversee the system in the event of technical difficulties. Budget-wise, the challenge is having insufficient money to adopt electronic medical records. Infrastructure and facility deficiencies might be found in the outpatient registration section. Lastly, frequent network outages and failures in the morbis application (SIMRS) when bridging data with BPJS are examples of engine-related barriers.

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