



Preparation of Retention of Manual to Electronic Medical Record Documents using Fishbone Diagram at Puskesmas Kauman Baru Ponorogo

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Abstract. Retention preparation is the process of identifying, assessing, and grouping archives in accordance with the applicable retention schedule, before final action is taken on the archive. This study aims to determine the obstacles to retention preparation from manual to electronic at the Kauman Baru Ponorogo Health Center and the challenges of retention preparation. The research used descriptive qualitative method with data collection method. Data were obtained through observation of 33,445 medical record documents, as well as interviews with medical record officers. The research instrument included an observation sheet with five assessment components. The results showed that retention preparation still faced obstacles, especially in terms of facilities and infrastructure. One of the main obstacles is the limited storage space, which is narrow and not suitable to support the process of digitizing medical records. This study recommends increasing training, providing a new building that is suitable and safe for storage and the process of digitizing medical record documents can run effectively and in accordance with regulations.

Keywords: Digitalization; Document Retention; Electronic Medical Records; Fishbone Diagram; Health Center.

1. BACKGROUND

The Medical Record Regulation in article 47 paragraph (3) of Law number 29 of 2004 concerning Medical Practice regulates the Implementation of Medical Records using the Minister of Health Regulation. Based on Permenkes No 269 / MENKES / PER III / 2008 concerning medical records.

Medical Record article (1) is a file containing records and documents of patient identity, examination, treatment, actions, and other services that have been provided to patients. Medical Records article (3) is a fact, Both in writing and recorded about the identity, history, laboratory, diagnosis, all services, and medical actions given to patients and treatment both outpatient, inpatient, and emergency services.

In the implementation of the transition from a manual medical record system to an electronic medical record system at the Kauman Baru Ponorogo Health Center, retention activities must be carried out because the electronic medical record system still uses medical record documents (DRM) in the form of paper and is stored in an inactive room, which has not been completely destroyed because it is still in the process of transitioning from manual to electronic. The number of medical record files retained is around 33,445 and medical record documents are retained in 2021. Medical record documents are retained from the last 2 years of patient treatment so they are stored in the inactive room, after which it has passed 2 years to 5 years of not coming.

The process of transferring manual medical record documents to electronic ones is seen from the medical record number when the patient does not have an ERM sign first, if it is ERM, It means that it is already in the E-pus, it can be seen from the history that it is separated for destruction. The implementation of medical record retention at the Kauman Baru Ponorogo Health Center has been available in the form of storage tools and manual supporting equipment, But has not been equipped with modern technology such as a digital archive management system or document shredder. This limitation impacts the efficiency and security of the retention process. Information Technology Infrastructure conditions that support RME implementation. Some factors include 2 computers at the registration counter and 4 computers in the general clinic, where WIFI and LAN sometimes do not work.

The challenges faced in storing manual to electronic medical record documents from the place of transfer from the old building which is now the Bantarangin Hospital to the new building of the New Kauman Health Center are not in accordance with the rules, it cannot be open, it must be closed because it is only limited by curtains and obstacles faced in the retention process are caused by facilities and infrastructure, there is still a transition to make a new building in front of the Kauman Baru Ponorogo Health Center so that retention has not yet been carried out. In the medical record retention activities at the Kauman Baru Ponorogo Health Center, it shows that the funding aspect has been considered and allocated adequately. The existence of a special budget, administrative support in the form of minutes, the involvement of enumerators, and the presence of representatives of the Health Office are evidence that retention activities have been carried out professionally and according to standards.

2. THEORETICAL STUDY

Retention or shrinkage is an activity of separating or moving between inactive medical record documents and medical record documents that are still active in the storage room (Filling). The purpose of shrinkage is to reduce the number of medical records that are increasing with new patient medical record files..

According to Permenkes Number 24 of 2022 concerning Electronic Medical Records in article 14, It has the definition of a patient registration activity or patient registration in the form of filling in identity data including name, RM number, and population identification number (NIK) and patient social data including religion, occupation, education, and marital status The destruction of Electronic Medical Records in article 39 is carried out in accordance with the provisions of laws and regulations.

According to BPPRM in 2006, Retention has the meaning of an activity of separating or moving between inactive medical record documents and medical record documents that are still active in the storage room (Filling). In addition, retention can also be interpreted as reducing the number of forms contained in the RM file by sorting the use value of each form.

Previous research by Salsabilah Putri (2022) shows that medical record file retention activities are still not optimal. The obstacles that are often experienced by the time used to retire medical record files are longer due to lack of human resources, inadequate place facilities so that many medical record files are piled up close together on one shelf and Danang Satriya Prayoga's Previous Research (2022) states that the shrinkage of medical record documents in third parties is due to the absence of medical record document retention land, causing the implementation of shrinkage of medical record documents to be placed in third parties which has an impact on medical record documents that are prone to misuse.

Thus, This theoretical study is the basis for analyzing the preparation of manual to electronic medical record document retention using a fishbone diagram and knowing the causes of the unimplemented preparation of manual to electronic medical record document retention, both from the man factor, method factor, machine factor, material factor and money factor.

3. RESEARCH METHODS

Descriptive Analysis is a research method by collecting data in accordance with the actual data then the data is compiled, processed and analyzed to be able to provide an overview of the existing problems. In descriptive analysis, data is usually displayed in the form of ordinary tables or frequency tables, graphs, bar charts, line diagrams, pie charts, data centering measures, data distribution measures and so on (Sugiyono, 2010).

The Descriptive Method was chosen because the research conducted was related to ongoing events and related to current conditions. This research is a descriptive study at the Kauman Baru Health Center, Ponorogo Regency on the month of . The data studied consisted of primary and secondary data. Primary data was obtained by conducting an interview with one medical record officer who discussed the preparation process for the retention of manual to electronic medical record documents using a fishbone diagram. Meanwhile, secondary data was obtained through document studies on 33,445 medical record files. Data were analyzed descriptively and in the form of fishbone diagrams.

4. RESULTS AND DISCUSSION

Results

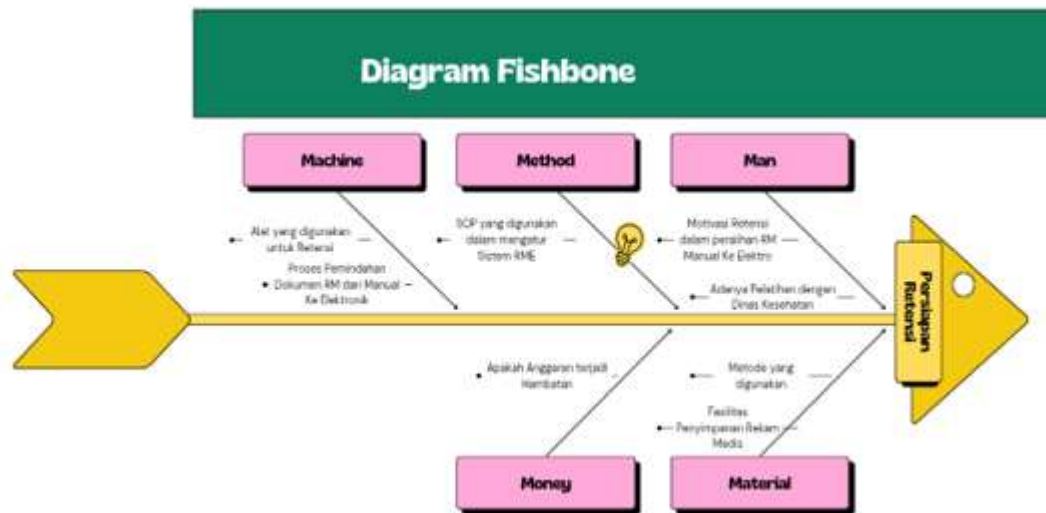


Figure 1. Diagram Fishbone.

Factor Man : Staff Motivation and readiness to transition to an electronic system is good, But there are still obstacles in the overall data transfer process.

Factor Method : The flow of transferring manual medical record documents to electronic.

Factor Machine : Inadequate IT infrastructure,Such as unstable internet network and limited hardware.

Factor Material : Physical storage facilities are not up to standard; Archive rooms are still open and unsafe.

Factor Money : Funding for retention activities is available, But still requires more optimal and structured management.

Discussion

Man: According to the WHO on EMR Implementation, "The implementation of electronic medical record (EMR) systems faces various challenges, including a lack of infrastructure, training, and mature data management systems". Manual documents stored in inactive rooms are part of the transition process that requires a phased strategy, infrastructure support, and comprehensive readiness from healthcare providers.

Method: According to Wager, Lee, & Glaser (2017) in Health Care Information Systems: "Interoperability and indexing are very important: Medical record numbers are the key to linking manual documents with electronic medical records. Audit trails and patient history logs in ERM must show the transition from manual to electronic data." The process of transferring manual medical records to electronic format by referencing medical record numbers is a systematic approach that ensures no data duplication or loss occurs.

Machine: According to a study by BMC Medical Informatics, one of the determining factors for the success of EMR in resource-limited environments is system infrastructure: the availability of reliable electrical power, protected servers and computers, and fast and stable networks and Internet connections. This infrastructure includes hardware, software, internet networks (Wi-Fi and LAN), and other supporting systems that enable the entire process of recording, managing, and accessing medical records to be carried out digitally, quickly, and securely.

Material: According to the WHO (World Health Organization, 2012) – Health Information System states that: “Health facilities must provide physical and/or digital storage space that meets the principles of accessibility, security, and confidentiality. The transfer of data from the old building to the new building requires adequate infrastructure planning so that data is not lost, damaged, or leaked.” The main issue faced is the lack of medical record storage facilities that comply with regulatory standards, as well as limitations in the facilities and infrastructure required for document retention. Medical record storage spaces must be enclosed, secure, and inaccessible to unauthorized parties. However, in reality, the temporary storage room in the new Kauman Baru Health Center building does not meet these requirements, as it is only separated by curtains, meaning it is not permanently closed and does not guarantee the security and confidentiality of patient data.

Money: According to the Principles of Records Management – The National Archives UK (2008) states that: “An effective records storage process must be supported by adequate funding, documented procedures, and oversight to ensure legal compliance and operational integrity.” This includes financial support for the procurement of facilities and infrastructure, the implementation of document sorting and destruction activities, and the involvement of relevant human resources. The availability of a special budget for retention activities demonstrates the serious attention of health center management to the importance of effective, secure, and regulatory-compliant archive management.

5. CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the research entitled "Preparation of Retention of Manual to Electronic Medical Record Documents Using Fishbone Diagrams, it can be concluded that the: 1) Man Factor, motivation and training have been provided, but there are still obstacles in technical implementation in the field. 2) Method Factor, the retention SOP has been prepared, But its implementation is not consistent with the guidelines. 3) Machine Factor, Modern supporting

equipment is not yet available such as digital archive management systems and file shredders. 4) Material Factor, the storage space does not meet ideal standards and is not physically secure or confidential. 5) Money Factor, financing is available and supports the retention process, but has not yet fully encouraged the efficiency of mass digitization.

Suggestions

The suggestions given by researchers for the smooth preparation of retention of manual to electronic medical record documents at the Kauman Baru Ponorogo Health Center are as follows: 1) Man Factor, It is hoped that the Kauman Baru Ponorogo Health Center will increase human resource capacity by: Conducting regular follow-up training for medical record officers, especially regarding RME management and the use of the health management information system (SIMPUS). 2) Method Factor, it is expected that the Kauman Baru Ponorogo Health Center will improve SOP and monitoring by: Developing and socializing more detailed and operational document retention SOP, Including media transfer procedures, retention criteria, and destruction mechanisms. 2) Machine Factor, it is expected that the Kauman Baru Ponorogo Health Center, improve infrastructure by: Ensuring stable Wi-Fi and LAN networks in all service units, Such as registration counters and general poly, So that the process of accessing and inputting data in the RME system is not disrupted. 3) Material Factor, it is expected that the Puskesmas will accelerate the process of digitizing documents as a long-term solution. Given the limited physical space, Accelerating the process of transferring media to electronic form is a strategic solution. 4) Money Factor, expect Puskesmas to Expand Budget Utilization for Technology Support and Digitization In order to make the retention process more efficient and modern, Part of the budget can be directed to the procurement of technological devices, Such as digital records management systems, Document scanners, and Supporting software integrated with the E-Puskesmas or ERM system.

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