

Security and Privacy Aspects of Medical Records Based on 5-M Management Elements at Siti Hawa Hospital in Padang

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ABSTRACT

Security and privacy are very important factors in medical record (MR) file management. Therefore, the hospital is obliged to maintain patients MR file safely and to protect privacy of its contents. This study aims to find out the security aspects of MR files based on 5M management elements which have been implemented at Siti Hawa Hospital in Padang. The results from observations, questionnaires, and interviews that have been conducted, the security and confidentiality aspects of the files at RSIA Siti Hawa are good. The policy on file security has been implemented, only some supporting tools are incomplete and adequate in the MR room such as fire detectors, humidity measuring devices, and thermometers to keep room humidity stable and MR files can be maintained properly.

Keyword: File room, File, Medical record, Privacy, Security

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INTRODUCTION

Medical record (MR) management is one form of the medical support services. Health services need to be improved from time to time, to increase patient visits to the health facilities. MR is one of the information source and communication tools as well that valuable to the patients, health service providers, and other stakeholders (clinics, public hospitals, insurance providers, etc.), as considerant to make a good management, policy, and action on MRs issues.^[1]

Medical privacy can also refer to the interaction between patients and providers while in a medical facility. Many concerns include the degree of disclosure to insurance companies, employers, and other third parties.^[2] Medical care services cannot be carried out effectively if MR documents are damaged or disappeared due to the absence of medical information sustainly.

The function of hospital document is source of data and information that really important in planning, analysis, decision-making, assessment, controlling, reporting, continuity of medical information, and accountability as well.^[3]

Documents and MR s are contain of the patient's medical history from the beginning to the end while visit a health facility. Therefore, the hospital is obliged to maintain patients MR file safely and to protect privacy of its contents.^[4] The durability of MR files can be maintained by avoiding the documents contact from damaging materials such as water, paint, ink, unstable temperatures, and others.

From this description, the authors are interested in conducting research on how the security aspects of MR files based on 5M management elements will be carried out at Siti Hawa Hospital in Padang. The 5M management elements are referred to Man, Money, Method, Material, and Machinery.

RESEARCH METHODS

This research is being carried out at Siti Hawa Hospital in Padang and will be continued with data processing at the Academy of Records and Health Information IRIS, Padang.

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Research Methods

This study uses a descriptive method by describing the safety and secrecy aspects of MRs in the storage room of Siti Hawa Hospital in Padang. The research instruments that will be used are interviews and questionnaires. The questionnaire that will be made contains items of how to implement the security of MR files in the storage room.

Data Collection Technique

The data collection technique had used in this study by distributing questionnaires to MR officers and the head of MR in the form of a Google Forms link, then visiting the room to ensure the data consistency.

RESULTS

From the results noted related to data security and privacy can be shown in Table 1.

DISCUSSION

Based on the results of observations and interviews with MR officers that have been carried out, it was found that the hospital has implemented several aspects of security and privacy of MR files based on 5M elements.

Table 1: Observation results, questionnaires on the security, and privacy of medical record files at Siti Hawa Hospital in Padang

<i>Management factors</i>	<i>Observed data</i>	<i>Available</i>	<i>Not available</i>
Man (human resources)	Medical recorder	√	
	Educational qualification background:		
	Bachelor at Medical Record		√
	Diploma at Medical Record	√	
Material (equipment and stationaries)	Senior High School		√
	Filing room officer	√	
	Thick File Folder (Med. Record Files)	√	
	HVS Paper A4	√	
	Printer Ink (Black)	√	
	File Cabinet	√	
	Tracer		√
	APAR		√
	Fire Detector		√
	Thermometer dan Humidity Meter		√
Machineries	Insect Kamfert	√	
	AC	√	
	Computer	√	
	CCTV	√	
Methods	Standard operational procedures for Files Privacy	√	
	Vows of Files Privacy	√	
	No Entry/Forbidden Sign Board	√	
Money (Budget)	Files maintenance Costs	√	

Human Elements (HR)

The MRs department of Siti Hawa Hospital has six MR officers and one head of MRs, all of them are have MR qualification (Diploma in MR). In this case, health workers in the hospital are qualified according to existing regulations. According to Dani,^[5] officers with an educational qualification of MR diploma must have gained theoretical and practical knowledge regarding to MR storage based on a storage system that is more diverse than non-MR diploma officers.

The qualifications and education of MR staff are contained in the Regulation of the Minister of Health of the Republic of Indonesia Number 55 of 2013^[6] concerning the Implementation of MR Work. Article 3 reads: (1) Standard of passing Diploma three as an Associate Expert in MR and Health Information; (2) Standard of passing Diploma four as Applied Bachelor of MRs and MRs Information; (3) Standard of graduation for Bachelor as Bachelor of MR and MR Information; and (4) Standard of passing the Master as Master's Degree in MRs and Record Information.

According to Hatta,^[7] privacy is the protection of the patient's MR and other information by safeguarding the patient's personal information and kind of treatments that provided to them. Article 22 is obligatory for health workers in carrying out their duties: (1) To respect the patient's rights, (2) to maintain the privacy of the patient's identity and personal health data, (3) to provide information related to the condition and actions has taken, (4) to request approval for actions to be taken, and (5) to create and to maintain MRs files.

Material Elements

Storage of MR files has used a thick folder that complies with the standard. According to the WHO,^[8] the materials used to make MR folders are thick and not easily torn like manila paper or other strong cardboard. In terms of paper and ink have also used good materials. The ink which used is black ink on A4 size paper. The

storage of MR files uses a closed metal cabinet, in this case, the hospital has kept files well. Closed cabinets have a great effect on safety to avoid dusty, dirty and insects, then make sure files can be stored neatly and cleanly. This closed file cabinet also must be locked and unlocked by the officer in charge who is determined by the management and kept it safely.

According to Setyowati,^[9] the chemical aspect can potentially damaging archives such as the use of quality inks that are unlikely to fade and blur while the use of low-quality ink and damaging paper by water or humidity. In addition, food and drink can also affect document damage.

Regulation of the Head of the National Archives of the Republic of Indonesia No. 06 of 2005 concerning to the protection and security of vital documents or archives contained in the method of protecting vital archives, can be done using special equipment (vaulting). Protection of vital archives from physical or natural disaster can be done using special storage equipment such as metal cupboards, fire-resistant filing cabinets, basements, and so on.

In terms of issuing files, the hospital does not have a tracer to track the outgoing files. Tracer is an important tool to monitor the using of MR files. This card is filled in, every MR document will be taken, then inserted into the document to be taken as an indication that the MR document is not in storage. A file cabinet that does not have a tracer will confusing the officers to return and manage the MR file after patient service.^[10]

In terms of security and privacy, the filing room is good, because it only has one MR officer in charge. According to Firdaus,^[11] only MR officers and authorized officers are allowed to enter the MR storage room. The storage space for MR files is put together with the assembling division, BPJS claims division, and index division. This indicates that the hospital is good at maintaining the security and confidentiality of MR files. In terms of safety material for safeguarding MR files, the hospital is only having a fire extinguisher, but fire detection, humidity meter, and thermometer are not available.

Based on the theory of Sugiarto, the archive storage space (MRs) must be built and arranged as best as possible so that it supports the preservation of archives: (a) The location of the archive room/building is located outside of an industrial area with a sufficient area to store previously estimated records. If it is part of a building, the archive room should be separate from the crowd of other office activities and not be traversed by drains. (b) Building construction does not use wood that directly touches the ground to avoid termite attacks. (c) The room is always clean from dust, paper files, cigarette butts, and food scraps.

Machine Elements

The MR room at Siti Hawa Hospital already has security facilities such as CCTV, fingerprint, and air conditioner (AC) and computers. According to Wijastuti,^[11] storage space is not good too humid, so an AC can be installed that is running 24 h to regulate the humidity and to reduce the amount of dust. Installation process has to be constant and fixed to avoid AC changing suddenly which is potentially will damage the paper. According to theory, the humidity of a storage room must in ranges from 18.8°C to 24.24°C if the temperature is less than normal, it will damage the archives. According to this issue, Siti Hawa Hospital does not have humidity and temperature regulators.

Method Elements

From the interviews had conducted with the head of MRs, Siti Hawa Hospital already has a MR privacy policy as outlined in standard operational procedures. Everything related to safety and privacy instructions and information release is included in this procedure. This procedure has also been socialized to all MR officers and they have understood the contents of privacy procedure. In article 10 paragraph, (1) Permenkes RI Number 269/Menkes/Per III/2008^[12] concerning MRs are confidential/secret, meaning that not everyone is allowed to read the information about identity, diagnosis, medical history, disease history, examination history, and treatment history of patients which are must kept in secret by doctors, dentists, certain health workers, managing officers, and heads of health service facilities.

In terms of maintaining the files privacy in the hospital, warning signs board at the entrance door already made to prohibited other officers to enter the files room and the keep privacy of the patient documents.

Money Elements

File security and privacy in the hospital require several tools and materials to support it. All tools must always be maintained and

monitored for use to be durable and functioning properly. The costs incurred by Siti Hawa Hospital in maintaining the security and privacy of files are routinely provided. Each officer will check what tools or materials monthly to ensure those tools and materials are available.

CONCLUSION

Based on the results and discussion, it can be concluded that the security and privacy aspects of the files at RSIA Siti Hawa are good. The policy on file security has been implemented, only some supporting tools are incomplete and adequate, such as fire detectors, humidity measuring devices, and thermometers to keep room humidity stable and MR files can be maintained properly.

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