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Inactive Medical Record Management at Bandung Hospital



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Abstract



Keywords

health; inactive medical; medical records; record management; Bandung Hospital; storage system; The purpose of this study was to examine the management of inactive medical records in a private hospital in Bandung. The research method used is descriptive-analytic. The research subjects were the head of the medical records section and the storage officer. The results of the study were in inactive medical record storage in the form of microfilm and USB as well as computer notebooks. The medical record room does not have room temperature control, humidity control room, and lighting settings. Maintain the cleanliness of the medical record room and inactive medical records. There is no treatment for inactive medical record files, air exchange, and medical record maintenance. Storage of inactive medical records uses a centralized and decentralized system. Requirements for inactive medical record storage rooms for temperature control, storage cabinets, and room humidity do not use regulators, and there is no supervision.

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1 Introduction

Health care facilities try to provide what patients need (Runciman et al., 2017). In hospitals that are part of this, there is also a medical record which is the most important part of information and also guidelines for doctors in dealing with. The administration of medical records begins with recording, handling, storing, and dispensing with patients. Information contained in medical records must be kept complete and confidential (Maillet et al., 2015).

The usefulness of medical records is as a medium between doctors and other experts who take part in providing services, treatment, and care to patients, as a basis for planning treatment/care that must be given to a patient, written evidence of all service actions, disease progression, treatment during the patient's visit/treatment at the hospital and protect the legal interests of patients, hospitals and doctors, and other health workers

Activities of organizing medical records using a computerized system can produce data sourced from all health service activities of health service institutions (Sholihah & Saputri, 2019). Processing of data and information regarding the patient's health condition is not only stored in physical medical records but data and medical information of a patient can be stored automatically by using technological media such as computers so that medical information about the patient's health condition can be stored as long as possible and covered. Answer for validity and accuracy.

The use of a computerized system in the administration of medical records is very important to assist in the process of processing patient medical data (Rinata & Andayani, 2018). As well as issuing information regarding the effectiveness and efficiency of health services so that the data and information produced are fast and precisely accurate

Various kinds of medical record documents, both active and inactive, are used in treating patients, the difference between the two lies in the frequency of visits. In inactive medical records, medical record documents that have reached a certain time are never used because there has never been a visit for 5 years. (Lu, Tsou & Chen, 2017). In Minister of Health Regulation No. 269 of 2008, it is stated that inpatient medical records must be kept for at least 5 years from the last date the patient was treated or discharged. Inactive Medical Record Documents are kept and are needed for education, research, and patient re-treatment (Kim, 2015; Suhler et al., 2008).

Management of inactive medical records so far has not paid much attention to storage such as insufficient storage and exceeding capacity, so it is difficult to retrieve and compose medical records. Medical records are not neatly arranged, medical record folders are easily damaged, and the preparation of medical records is inappropriate. This causes the service is not optimal and efficient in serving patients. And other losses such as the destruction of medical record files (Deniati & Annisaa, 2022). Destruction by burning all medical record files, medical record forms that are not destroyed, and valuable medical record files for permanent storage by being scanned and stored on the hard disk to maintain the integrity of the medical record file from damage and save inactive storage space (Bleich & Slack, 2010; Ludwick & Doucette, 2009; Perera et al., 2011).

On the other hand, there are still many things that need to be improved in the process of working on active medical records such as the implementation that needs to be improved and several benefits of integrated medical records, (Hicks et al., 2015) namely more attention to services and better collaboration

In dealing with the problem of shrinking medical records, especially in imaging. In general, the stages in shrinking medical record files by sorting medical record files, checking the year of the last visit to the Health Information System, carrying out the imaging process, moving medical record sheets to a folder, and inserting medical record sheets that are of no value to storage warehouse (Moss et al., 2018). In detail, the imaging process includes medical record sheet sorting, scanning process, and storage.

The delay in the implementation of the imaging process is often caused by a lack of human resources (HR), there are no fixed procedures and work instructions, imaging results have not been connected to the Health Information System, and there is no budget for imaging tools for imaging large medical record sheet (Wang & Luo, 2005; Haines et al., 2006; McMullan, 2006).

Anggorowati, R., Rahayu, T., Arif, M. I. N., Rizki, K. M., Lucky, A. W. P., Rosyad, A. S., & Hafizhah, A. Z. (2022). Inactive medical record management at Bandung Hospital. International Journal of Health Sciences, 6(3), 1520– 1526. https://doi.org/10.53730/ijhs.v6n3.13160 Observations were made at one of the new private hospitals in Bandung, West Java. Due to secrecy, the researcher is following the agreement by not stating the name of the hospital. The medical record storage room was divided into two, namely the active medical record storage room, and the different inactive medical record storage room (Saffady, 2021). Destruction was carried out in 2009. In 2012-2013 medical records in the inactive room were stored on shelves and some were piled on the floor due to insufficient shelf capacity. The background above is the basis for consideration by researchers to focus on questions with the formulation of the problem of how to manage inpatient medical records at one of the new private hospitals in Bandung, West Java.

2 Materials and Methods

This study uses a descriptive qualitative method which is carried out to make a picture or description of a situation objectively (Bradbury-Jones et al., 2017). The research location was in an inactive medical record storage room, one of the new private hospitals in Bandung, West Java, from January to April 2022. The research subjects were the head of the medical records department and 2 medical record storage officers. The checklist is used as an observation guide to identifying the management of inactive medical records (Husariev et al., 2021). Interviews were conducted with storage officers to obtain information. This study used a descriptive qualitative method which was carried out to make an objective description or description of a situation.

3 Results and Discussions

Inactive medical record storage system

Based on the interview, informant 1 stated that: Inactive medical record storage is above on the 6th floor by conducting medical records, and conducting medical records on the lower floor, namely on the 2nd floor. (Sjöberg et al., 2021). A system with medical record storage with inactive categories, using a centralized system and non-centralized system that is a combination of outpatient and inpatient, inactive medical record storage is not stored in microfilm, and external hard disk but stored in books and computer internals.

Interviews were conducted with the second informant as additional data: "Inactive medical record storage is in a different place from inactive medical record storage, namely using a centralized and decentralized system while active medical records use a decentralized system, as a file storage area, which is not stored in microfilm and external hard drives.

Inactive medical record storage room

Based on interviews with informants, the second, for completeness of the data, has stated that: (Thomas, 2017). There is no temperature control in the room, no humidity control in the room, and also no lighting in the room without using lights.

In line with the third interview, the informant has said, to bring a room temperature controller using natural air, to regulate humidity, use natural air, and use two doors and two windows for lighting settings during working hours. And do not use a temperature controller, and there is no humidity regulator, for setting the light in the room using incandescent lamps.

Maintenance of inactive medical records

The results of the interview with the first informant, namely that he has said that for the maintenance of inactive medical record storage (Rini & Kumala, 2017). This is carried out by the cleaning service officer, exchange of on-air contacts through the control gate, which has been carried out from 2016 until now, and sorting is carried out for the destruction of goods that have been damaged, as well as for monitoring.

From the results of the interview with the second informant, it was found that: Treatment of inactive medical record storage rooms is rarely carried out, (Townley, 2019). In 2016, the room was replaced by not using an air conditioner, but using two doors in opposite directions, and opened during working hours and there was never any inactive medical record supervision. The results of the interview with the third informant, explicitly stated that the cleaning of the inactive medical record storage area was carried out by cleaning service officers, and air exchange through doors and windows, while control was not carried out.

Discussion

Inactive medical record storage system

Storage is used with a centralized system, which is a combination of outpatient medical records and inpatient medical records. The choice of a centralized system for storing medical record data affects officers being busier because they handle outpatient and inpatient units simultaneously (Subekti, 2018). In a centralized system, the patient's medical record is stored in a single unit, both records of polyclinic visits and records of a patient being treated. All medical data is stored in one place.

The advantages of a centralized system are reducing duplication, easy uniformity of work procedures, work efficiency, and easy service. However, this centralization has weaknesses, namely, it takes sufficient time in service, requires a large enough space, more tools and personnel if the storage area is separate from the medical record location (Nasim et al, 2022). Solutions from a centralized system can use straight numerical filling (SNF) or a direct number system. Where in detail the advantages are reducing the occurrence of duplication in the maintenance and storage of medical records, reducing the number of costs used for equipment and rooms, enabling increased work efficiency of storage officers, and easy implementation of the unit record system

The achievement of optimization in the storage of inactive medical records is carried out by using tools as a medium for the transfer process from active to inactive medical records (Clarke et al., 2016). The availability of tracer and DRM will make work faster and easier to use tracer and DRM as a tool in moving DRM from active to inactive. The availability of a tracer will make it easier to implement the management of documents that have been retained.

Inactive medical record storage room

The inactive medical record storage room has an important role in maintaining damaged medical record data. Regarding standard medical record rooms, efforts to maintain the room are with SOP (standard operating procedures). Inactive medical record storage space in one room will prevent slow service. In medical record storage, you can use *roll o'peck* racks to speed up service. In minimizing the cost of maintaining medical record data in the form of paper, room lighting can use sunlight as a way to get air circulation.

The high budget in one of the ways to maintain room temperature is by not using air conditioning. Instead, manual ventilation is used. Efforts to prevent events beyond control can be provided by providing light fire extinguishers, namely to prevent damage to medical documents (Deniati & Annisaa, 2022). Optimizing the facility in terms of room temperature, humidity, dust prevention, and minimal light regulation will reduce the impact on archive damage. The above is supported by research that the cleanliness and temperature of the storage room air temperature in the filling room must be adequate to prevent moisture and damage to medical record documents. The humidity in the storage room, the humidity of storage room is about 50% to 65% and the air temperature is between 18.8 to 24.24 degrees Celsius (14).

Maintenance of inactive medical records

The maintenance of medical record data must be carried out appropriately and efficiently. Humid space becomes a medium for the growth of fungi in medical files (Toennies, 2017). The existence of a well-controlled air temperature and a well-ventilated room will prevent data corruption Security in storing medical records to protect medical records from physical damage and the contents of the medical record themselves. Medical records must be stored and maintained because medical record documents are very valuable a comfortable

Anggorowati, R., Rahayu, T., Arif, M. I. N., Rizki, K. M., Lucky, A. W. P., Rosyad, A. S., & Hafizhah, A. Z. (2022). Inactive medical record management at Bandung Hospital. International Journal of Health Sciences, 6(3), 1520– 1526. https://doi.org/10.53730/ijhs.v6n3.13160 medical record room is a medium for storing patient data and information. It is a requirement for easy access to data and optimal security

The maintenance of the inactive medical record storage room is carried out by the cleaning service officer with permission from the medical record officer (Njoku, 2019). Air exchange in the inactive medical record room which is not equipped with an air conditioner (AC) and the storage room that only uses fans and the inactive medical record room is open when working hours, does not guarantee that the medical record data is in optimal condition, the effort that can be done is to provide adequate ventilation so that the air exchange in the room is smooth.

The frequency in controlling the inactive medical record room is carried out when there is only data destruction that is when it will be retained. Medical files that are more than 5 years old are re-examined by officers (Mayer, 2015). The opinion that the maintenance of medical record documents that are not appropriate can be seen from the physical aspect. If there is a folder that has been damaged or has not been replaced with a new one, it is hoped that it will be replaced with a new one, so that it is easy to read.

Optimal use of space will support success in public services. Efficient utilization will serve to realize the objectives to be achieved in document storage (Penn & Pennix, 2017). The condition of the room and supporting equipment are still inadequate, such as insufficient inactive medical record storage racks causing medical record documents to not get to the appropriate place. as well as a room temperature controller that does not yet exist and lighting in the room is still lacking. These infrastructure facilities will support the work of medical record officers to make it easier and create a sense of comfort at work. The consequence is to speed up the work implementation process so that it saves time, is of higher quality and guaranteed, and creates a sense of comfort and satisfaction.

In the maintenance of inactive medical record management which is still minimal in the room such as lighting, room temperature regulation, room maintenance, humidity control, and storage racks, the files become less controlled. This is supported by (Wahyuningtyas, 2015). That the tools used in the implementation of management are not yet complete, causing the staff to have difficulty controlling medical record documents. This indicates that maintenance plays an important role in supporting document maintenance (Utami, 2018). Patient information documents must be retained if it is over 5 years.

4 Conclusion

Based on the findings of the data through the field survey and its discussion, several conclusions can be drawn as follows:

- Medical Record Storage System Off. Storage is used with a centralized system, not centralized, which is
 a combination of outpatient medical records and inpatient medical records. The selection of a
 centralized and non-centralized medical record data storage system makes the officers busier because
 they handle outpatient and inpatient units simultaneously
- 2) The medical record storage space is not active. Inactive medical record storage rooms have a very important role in maintaining damaged medical record data. The standard for the medical record room is the maintenance of the room following the standard operating procedure.
- 3) Maintenance of inactive medical records, namely maintenance of medical record data must be carried out continuously, precisely, and efficiently. Because in a humid room mold grows on the medical file. Keeping the air temperature well controlled and a well-ventilated room will prevent data damage

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References

- Bleich, H. L., & Slack, W. V. (2010). Reflections on electronic medical records: when doctors will use them and when they will not. *International journal of medical informatics*, 79(1), 1-4. https://doi.org/10.1016/j.ijmedinf.2009.10.002
- Bradbury-Jones, C., Breckenridge, J., Clark, M. T., Herber, O. R., Wagstaff, C., & Taylor, J. (2017). The state of qualitative research in health and social science literature: a focused mapping review and synthesis. *International Journal of Social Research Methodology*, *20*(6), 627-645.
- Clarke, M. A., Moore, J. L., Steege, L. M., Koopman, R. J., Belden, J. L., Canfield, S. M., ... & Kim, M. S. (2016). Health information needs, sources, and barriers of primary care patients to achieve patient-centered care: A literature review. *Health informatics journal*, *22*(4), 992-1016.
- Deniati, E. N., & Annisaa, A. (2022). Management of the Medical Record System at the Mother and Child Hospital (RSIA) Puri Bunda Malang City, East Java in 2019. In *3rd International Scientific Meeting on Public Health and Sports (ISMOPHS 2021)* (pp. 172-176). Atlantis Press.
- Haines, A., Kovats, R. S., Campbell-Lendrum, D., & Corvalán, C. (2006). Climate change and human health: impacts, vulnerability and public health. *Public health*, *120*(7), 585-596. https://doi.org/10.1016/j.puhe.2006.01.002
- Hicks, C., McGovern, T., Prior, G., & Smith, I. (2015). Applying lean principles to the design of healthcare facilities. *International Journal of Production Economics*, *170*, 677-686. https://doi.org/10.1016/j.ijpe.2015.05.029
- Husariev, S., Tarakhonych, T., Biloskurska, O., Starytska, O., & Nesen, O. (2021). Legal provision for medical aid and medical service in Ukraine. *International Journal of Health Sciences*, 5(3), 321–330. https://doi.org/10.53730/ijhs.v5n3.1529
- Kim, S. (2015). An exploratory study of inactive health information seekers. *International journal of medical informatics*, *84*(2), 119-133. https://doi.org/10.1016/j.ijmedinf.2014.10.003
- Lu, H. C., Tsou, W., & Chen, F. (2017). GLOCALIZED RHETORIC PRACTICES ON MEDICAL WRITING. *Circulo de lingüística aplicada a la comunicación*, (69), 217-237.
- Ludwick, D. A., & Doucette, J. (2009). Adopting electronic medical records in primary care: lessons learned from health information systems implementation experience in seven countries. *International journal of medical informatics*, *78*(1), 22-31. https://doi.org/10.1016/j.ijmedinf.2008.06.005
- Maillet, É., Mathieu, L., & Sicotte, C. (2015). Modeling factors explaining the acceptance, actual use and satisfaction of nurses using an Electronic Patient Record in acute care settings: An extension of the UTAUT. *International journal of medical informatics*, *84*(1), 36-47. https://doi.org/10.1016/j.ijmedinf.2014.09.004
- Mayer, I. (2015). Qualitative research with a focus on qualitative data analysis. *International Journal of Sales, Retailing & Marketing*, 4(9), 53-67.
- McMullan, M. (2006). Patients using the Internet to obtain health information: how this affects the patient– health professional relationship. *Patient education and counseling*, 63(1-2), 24-28. https://doi.org/10.1016/j.pec.2005.10.006
- Moss, M., Thomas, D., & Gollins, T. (2018). The reconfiguration of the archive as data to be mined. *Archivaria*, *86*(86), 118-151.
- Nasim, M., Abdullah-Al-Noman, S., Hasan, A. R., & Sattar, A. (2022). Digitalization and Centralization of Medical Information and Patient History in Bangladesh. In 2022 6th International Conference on Computing Methodologies and Communication (ICCMC) (pp. 153-158). IEEE.
- Njoku, V. (2019). *Strategies Hospital Administrators Utilize to Optimize Patient Services* (Doctoral dissertation, Walden University).
- Penn, I. A., & Pennix, G. B. (2017). *Records management handbook*. Routledge.
- Perera, G., Holbrook, A., Thabane, L., Foster, G., & Willison, D. J. (2011). Views on health information sharing and privacy from primary care practices using electronic medical records. *International journal of medical informatics*, *80*(2), 94-101. https://doi.org/10.1016/j.ijmedinf.2010.11.005
- Rinata, E., & Andayani, G. A. (2018). Maternal characteristics (age, parity, education) and family support with anxiety in third trimester pregnant women. *Medisains*, *16*, 14.
- Rini, S., & Kumala, F., (2017). Combination of Postpartum Care and Evidence-Based Practice. Depublish.

Anggorowati, R., Rahayu, T., Arif, M. I. N., Rizki, K. M., Lucky, A. W. P., Rosyad, A. S., & Hafizhah, A. Z. (2022). Inactive medical record management at Bandung Hospital. International Journal of Health Sciences, 6(3), 1520– 1526. https://doi.org/10.53730/ijhs.v6n3.13160

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- Runciman, B., Merry, A., & Walton, M. (2017). *Safety and ethics in healthcare: a guide to getting it right*. CRC Press.
- Saffady, W. (2021). *Records and information management: fundamentals of professional practice*. Rowman & Littlefield.
- Sholihah., & Saputri, D. W. I., (2019). Nursing Care for Post Partum SC (Sectio Caesarea) Mothers with Acute Pain Nursing Problems in Siti Walidah Room, Muhammadiyah Ponorogo General Hospital. 1–34.
- Sjöberg, M., Edberg, A. K., Rasmussen, B. H., & Beck, I. (2021). Documentation of older people's end-of-life care in the context of specialised palliative care: a retrospective review of patient records. *BMC Palliative Care*, *20*(1), 1-12.
- Subekti, S. W. (2018). Indikasi persalinan seksio sesarea. Jurnal Biometrika dan Kependudukan, 7(1), 11-19.
- Suhler, E. B., Lloyd, M. J., Choi, D., Rosenbaum, J. T., & Austin, D. F. (2008). Incidence and prevalence of uveitis in Veterans Affairs Medical Centers of the Pacific Northwest. *American journal of ophthalmology*, 146(6), 890-896. https://doi.org/10.1016/j.ajo.2008.09.014
- Thomas, D., (2017). The Digital in The Silence of the Archive (eds) David Thomas, Simon Fowler, Valerie Johnson. London: Facet Publishing.
- Toennies, K.D. (2017). Guide to Medical Image Analysis: Methods and Algorithms (part of the book series Advances in Computer Vision and Pattern Recognition (ACVPR). Switzerland: Springer Nature.
- Townley, B., (2019). Foucault, Power/Knowledge, and its Relevance for Human Resource Management in Postmodern Management Theory. London: Routledge.
- Utami, N. G., (2018). Analysis of Factors Affecting Decisions for Surgical Surgery at Tugu Rejo Hospital. 21, 5–18.
- Wahyuningtyas, A.N. (2015). Overview of Management Implementation: Medical Record Documents (DRM) in Filing Inactive Inpatients at the Semarang City Hospital. Undergraduate Thesis. Semarang: Universitas Dian Nuswantoro.
- Wang, F., & Luo, W. (2005). Assessing spatial and nonspatial factors for healthcare access: towards an integrated approach to defining health professional shortage areas. *Health & place*, *11*(2), 131-146. https://doi.org/10.1016/j.healthplace.2004.02.003

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