

ANALYSIS OF MEDICAL RECORD MANAGEMENT IN THE SPECIAL LUNG HOSPITAL OF NORTH SUMATRA PROVINCE

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Abstrak

Medical records are a mandatory and important document in the management of hospital services. Based on the Minister of Health Regulation No. 24 of 2022, it is described that medical records consist of confidential patient identity data containing records of examination, treatment, medical actions, and other services that have been provided according to patient needs. Problems that occur in various departments include incomplete documents in the preparation, coding errors, and the wrong location of files in the filling selection. Inadequate storage space and sub-optimal filling systems also contribute to lost records and inefficient retrieval. This study aims to look at the medical record file management process at the UPTD Special Lung Hospital North Sumatra Province. This research uses descriptive qualitative research methods. The results showed that the UPTD Special Lung Hospital North Sumatra Province still uses hybrid medical record file, and electronic medical records at the coding and indexing stages, and the supporting factors of the medical record file management process include human resources, suitability of Standard Operational Procedures (SOP), facilities and infrastructure, and reporting carried out at the UPTD Special Lung Hospital North Sumatra Province still has obstacles in the medical record file management process, namely the assembling process, coding and indexing, and the medical record file storage process.

Keywords: Analysis, Management, Medical Records

Introduction

Hospitals are health facilities that have a function as a place of medical provision and operate openly. This organization always interacts with its environment to achieve a dynamic balance and has a major role in providing services to the community. The higher the level of intelligence and socioeconomic status of the community, the better the knowledge of diseases, costs, administration, and healing efforts. Therefore, people expect quality health services from hospitals. Good quality health services are inseparable from the roles played by medical and nonmedical personnel. One of the important aspects in a hospital is the medical record system (1).

Medical records are a mandatory and important document in the management of hospital services. Based on the Regulation of the Minister of Health No. 24 of 2022, it is described that medical records consist of confidential patient identity data containing records of examination, treatment, medical actions, and other services that have been provided in accordance with the patient's needs (2). This medical record is not only about recording but the flow starting from recording patients who start getting medical services, followed by organizing, storing, and removing medical record file from

storage to serve loans/requests by patients or for other purposes (3). In addition, based on the Minister of Health Regulation No. 82 of 2013, medical records are also one of the variables in the Hospital management information system, where information on medical records can be used to assess the quality of management services of a hospital that is able to provide legal certainty in the organization and management of medical records that guarantee confidentiality, integrity, security, and availability of digital-based and integrated medical record data (4).

According to previous research, problems that are often faced in actualizing medical records such as inadequate medical record storage space, provision of medical record services that are not in accordance with Minimum Service Standards, incomplete medical record documents, and difficult to read writing (5). The recording of medical records should be written clearly and completely of electronically (6). In addition, information from medical records has not been maximally utilized by health care facilities due to delays in returning medical record documents (7). This will certainly have an impact on the workload of medical record officers, the quality of information, and delays in making reports. Based on the problems, medical records have several roles in the medical, administrative, financial, legal, documentation, and research fields (8).

Based on the results of research conducted in various hospitals in Indonesia, several problems were found, such as at Mitra Sehat Situbondo Hospital, where the high rate of incomplete documents was 66.67% and the delay in returning exceeded the set time limit (9). In addition, problems that occur in various departments include incomplete documents in preparation, coding errors, and incorrect file location in the filing section. Inadequate storage space and sub-optimal filing systems also contributed to lost records and inefficient file retrieval (9)(10). Based on this background, researchers are interested in conducting research related to how medical records are managed at the UPTD Special Lung Hospital North Sumatra Province, whether they have been managed properly in accordance with the Standard Operational Procedures (SOP) or not both from the assembling process, coding and indexing, and filing (storage process) of medical record files.

Metode

This research uses descriptive qualitative research methods. Qualitative research focuses more on thorough descriptions that are able to provide detailed explanations of activities or situations that are happening, compared to comparing the impact of certain treatments, or explaining individual attitudes or behaviors (11). Data collection was based on in-depth interviews, observation, and documentation analysis. The resource persons in this study were the Head of the Medical Records Unit, the Person in Charge of Registration & Admissions, the Person in Charge of Storage (filing), and the Person in Charge of medical record files management. This research was conducted in September 2024 at the UPTD Special Lung Hospital North Sumatra Province, Medan.

Result

Based on the results of interviews that have been conducted, it can be seen that there are several procedures that must be carried out in managing medical record files in this Hospital, starting from patient registration to making a recap of reporting on the medical record files of patients who come to visit this hospital within a predetermined period of time.

Flow of Medical Record File Management

Analysis and Assembling

Based on the results of interviews that have been conducted with informations regarding the implementation of assembling medical records at the UPTD Special Lung Hospital North Sumatra Province, she said

“....so the flow is that after the file returns from the poly, we check the completeness of the file, then sort the files if there are out of sequence, we analyze the file if it is incomplete, we give a mark on the file then tomorrow it is sent back to the polyclinic room concerned to be completed again, and if it is complete it is submitted to the coding and indexing officer...” (medical record assembling Officer)

Based on the results of interviews that have been conducted with informants related to the obstacles faced in the implementation of assembling at the UPTD Special Lung Hospital North Sumatra Province, said

“As for obstacles, sometimes the files are not returned within 1x24 hours to the medical record from the polyclinic, then the files are not completely filled in, so they are returned first to the room to be completed, which causes the files to accumulate...” (medical record assembling Officer)

Based on the results of interviews that have been conducted with informants related to solutions in dealing with assembling obstacles at the UPTD Special Lung Hospital North Sumatra Province, said

“... we complete the incomplete data in the patient's file such as dates, administrative data except for outpatient data that must be filled in by the doctor or nurse and then we check back to the polyclinic why the file has not been returned, socialize to the polyclinic officer regarding the Standard Operational Procedure for file return and do not let the patient hold the medical record file himself...”
(medical record assembling Officer)

Coding dan Indexing

Based on the results of interviews that have been conducted with informants regarding the implementation of coding and indexing of medical records at the UPTD Special Lung Hospital North Sumatra Province, said

“...this coding and indexing we do after the assembling is complete then entered into Hospital management information system which is guided using the ICD-10 and ICD-9 books to determine the diagnosis code of the disease...” (coding and indexing Officer)

Based on the results of interviews conducted with informants, No. obstacles were found in the implementation of coding and indexing of medical records at the UPTD Special Lung Hospital North Sumatra Province, which said

“...so far, the obstacle to coding and indexing is because there are still some doctors' writings that are difficult to read and if the network is disrupted, it makes it a little longer to input...” (coding and indexing Officer)

Based on the results of interviews that have been conducted with informants related to how to deal with problems in coding medical records at the UPTD Special Lung Hospital North Sumatra Province, said

“...yes, if the doctor’s writing was the most we reconfirmed to the doctor the meaning of the writing andi if the network, we just waited for a while until the network was good again..” (coding and indexing Officer)

Medical Record File Storage (Filling)

Based on the results of interviews that have been conducted with informants related to filling informants said

“Filling is the storage of medical record files”

Based on the results of interviews with medical record officers regarding the formation of a medical record destruction team based on the Standard Operational Procedure, the officer said that

“For now, the destruction team has been formed and later the destruction teal will destroy the files that have been stored in the Hospital’s medical records for a long time.”

Based on the results of interviews with medical record officers regarding filling guidance or medical record guidance has been implemented or not, the officer said

“It have never been done while working at this UPTD Special Lung Hospital North Sumatra Province”

Supporting Factors in the Medical Record File Management Process

Human Resources (HR)

Based on the results of interviews that have been conducted with informants related to human resource management in the management of medical records, this is sufficient as stated by the Head of the Medical Records Unit.

“so far it has been enough”. (Head of Medical Records Unit)

Which the availability and competence of graduates from HR in medical records can be seen in the following table:

Table 1. Availability of Human Resources in the Medical Records Unit UPTD Special Lung Hospital North Sumatra Province

Job	Amount	Competence	Information
Head of Unit	1	Amd.RMIK	
PIC of Registration & Admissions	1	Amd.Gz	
Registration & Admission staff	2	Amd.Kes	
PIC of Medical Record File Storage (Filling)	1	SLTA	
Medical Record File Storage Staff	-	-	(none)
PIC of Reporting and Quality	1	S.kom	(On leave)
Reporting and Quality Staff	1	D3 Ak	
PIC of Medical Record File Management	1	S.M	
Medical Record File Management Staff	1	S.H	
Amount	9		

Based on the results of the indentification that has been carried out, it is known that there are 9 human resources working in the medical records unit of the UPTD Special Lung Hospital North Sumatra Province and only has 1 human resources who has competency suitability for the work being carried out, namely the Head of Unit.

For the suitability of competence, the Head of the Medical Records Unit said

“There is no problem with the competence, they will also be given training, after the training they will also understand”.

Based on the results of interviews with informants (Head of Unit) related to the workload found by workers who are in the organization of this medical record, the informant said that

“There is already a working structure here, but we are still working together”. (Head of Medical Records Unit)

“As for workload, I don’t think, so, because we work together and help each other”. (Medical Record File Management Staff)

Conformity of Standard Operational Procedure (SOP)

In an interview with the Head of the Medical Records in this Hospital has been running in accordance with the Standard Operational Procedure (SOP) which the informant said that

“The management of medical records here has been running according to Standard Operational Procedure.”

Examples of the running of this medical record activity in accordance with the Standard Operational Procedure are

“Retention and erasure of medical record files have been carried out every 5 years, reporting has also been carried out for internal and external reporting, and writing errors have also been checked, no one has used other erasing tools that are not allowed in the SOP, erasing writing errors is only justified by crossing out the wrong writing and many others”. (Head of Medical Records Unit)

Facilities and Infrastructure

Regarding the facilities that have been provided from the agency, the Head of Medical Records Unit also said that

“For computers, it is sufficient for now, but for the signal it is difficult to input into Hospital management information system right.”

The obstacles that occur in the management of medical record files in this Hospital, the Head of Unit also said that

“For the obstacles themselves, because this Hospital is also still under construction, the medical record room and file storage room are still narrow, the availability of shelves is lacking, even though we have submitted for a long time about the lack of shelves but until now it has not existed and is also a little disturbed by the noise of the workers who are working”.

Discussion

Flow of Medical Record File Management

Analysis and Assembling

Assembling is the process of organizing medical record documents by checking the completeness of each medical record file. In the medical records unit, the assembling section plays an important role by checking the completeness of medical record documents before they are stored. They are also responsible for receiving, recording, and managing incoming and outgoing files in the register book, as well as monitoring incomplete medical record documents on a regular basis. Therefore, the assembling process is very important as an indicator of the quality of medical record file management in health care facilities (12).

The assembling process at the UPTD Special Lung Hospital North Sumatra Province has been carried out according to SOP, however, it is still carried out manually by medical records officers,

starting with receiving medical record files of outpatients from the polyclinic. After that, the medical record forms are arranged in the order determined by the Hospital, then an inspection is carried out to ensure the completeness of the file. Incomplete parts, in addition to requiring doctor's authentication or completed by a nurse, and files that are still not perfect are returned to the relevant polyclinic. Files that have been declared complete will be forwarded to the coding and indexing officer. The completeness of the available files has not met the standard which is 100%. According to Permenkes No. 129/Menkes/SK/II/2008, the standard of medical record filling requires 100% completeness (20). A medical record is considered complete if all aspects of the data in it have been filled in completely and accurately (13).

Based on a survey conducted by researchers, there are obstacles in the assembling process, namely the incompleteness of patient medical record files caused by the inaccuracy of medical personnel, the pursuit of patient service time which results in incomplete files such as the date and time of service, the name and signature of the doctor and nurse, the name or signature of the patient and an incomplete diagnosis. This is in line with research by Pamungkas et al, cited in previous research found that at Ngudi Waluyo Wilangi Regional General Hospital, the main factor in incomplete filling of medical records is the lack of discipline of doctors in doing so (14). This is because doctors are more focused on patient care, so that the time used for recording medical records becomes less efficient. Another obstacle in the assembling process is the delay of the polyclinic in returning the files to the forgetfulness of the medical staff at the polyclinic in returning the patient files. This delay in returning medical record files can disrupt the smooth process of assembling, coding, analyzing, and indexing, and increase the risk of document loss or damage (15).

However, this is not in line with previous research which says that the obstacle to assembling at PMC Hospital is that officer in charge of assembling does not yet exist so that the work has not been carried out optimally. Incomplete nursing care documentation in Hospital medical records can trigger legal risks, such as claims from patients to the Hospital (16). If assessments do not meet standards, this could potentially affect the quality of health services provided. Therefore, the discipline of medical personnel, completeness and timeliness of file returns are essential in maintaining the quality of Hospital services.

Coding dan Indexing

Coding is the process of assigning labels in the form of letters and numbers to medical data, such as diseases, medical actions, and procedures. These labels help in organizing and analyzing data. Meanwhile, *indexing* is the process of creating a list or indeks based on the code that has been given. This index makes it easier to search and retrieve information from medical records without mentioning the patient's name (17).

The implementation of the coding and indexing system at the UPTD Special Lung Hospital North Sumatra Province has met the applicable standards, by adopting the ICD-10 classification for diagnoses and ICD-9-CM for procedures. The indexing process has been carried out in accordance with the established SOPs, including indexing disease codes, operation codes, death codes, and the identity of the medical personnel involved (18).

Coding and indexing activities at the UPTD Special Lung Hospital North Sumatra Province already use an electronic system. With the existence of electronic medical records, the coding process is more efficient because the application system has been equipped with an auto-coding feature that can detect and provide codes automatically based on the data entered (19).

The obstacles faced by medical record coding and indexing officers at the UPTD Special Lung Hospital North Sumatra Province are unclear doctor's writing that makes it difficult for coding and indexing officers to enter data into the computer and computer networks that often experience interference. These findings are in line with previous research that identified computer performance

problems, such as slow loading, errors in the INA CBGs and Hospital management information system applications, and network disruptions as the main causes of problems (20).

Medical Record File Storage (*Filling*)

The filling system is one part of medical record unit that functions to store medical record documents, provide medical record documents for various purposes, protect archives of medical record documents against the confidentiality of the contents of medical record data, protect archives of medical record documents against physical, chemical and biological damage. Whereas Permenkes No. 269/MENKES/2008 Pasal 12 Ayat 1 that medical records have health care facilities, Ayat 2 that the contents of medical records belong to patients, the Hospital is obliged to maintain the confidentiality of the contents of medical record documents and maintain their durability.

The security of medical record documents involves the danger and damage of medical record documents themselves. The aspects of damage include physical aspects, chemical aspects, biological aspects, and theft. Physical aspects are damage to documents such as paper quality and ink caused by sunlight, rain, floods, heat, and humidity. Chemical aspects are damage to documents caused by food, drinks and chemicals. Biological aspects are document damage caused by rats, lipas, and termites. As for the security of the contents of medical record documents, it is necessary to have borrowing provisions, in borrowing medical record documents so that it can be known where the documents are and who the borrower is, and it is also necessary to know the importance of borrowing documents and must be considered from the legal aspect.

Records regarding the patient's identity from examination, treatment, and other actions taken by doctors are called medical records to make it easier for doctors to diagnose patient complaints in the future, so the patient's medical record file is filled in completely. Medical record officers are officers in charge of checking the completeness of medical record files. In carrying out their duties, medical record officers are separated into several segments, one of which is the filling officer. Filling officers are entrusted with safeguarding medical record documents, providing medical record documents needed by polyclinics and other officers, and completing the responsibility for storing medical record documents. Clinical record documents are stored in certain rooms that can only be entered by authorized workers. This is accordance with the statement that only medical record officers or individuals with specific authorization can access the medical record file storage room.

Supporting Factors in the Medical Record Files Management Process

Human Resources

Human resource management is the most important functional element that must exist in running an organizational structure. According to Permenkes No. 33 of 2015, a health resource is someone who works actively in the health sector, whether or not they have formal health education, which for certain types requires authority to carry out health efforts (15). The availability of health resources that are sufficient, evenly and fairly distributed, and effective is necessary to achieve success in health development which aims to improve the health status of the Indonesian people. The availability of health human resources that are insufficient in terms of quantity, quality, and type as well as the absence of equity in their distribution will have an impact on the low access of the community to quality health services (15). In the results of interviews obtained that the competence of some medical record health human resources in this Hospital is not in accordance with their fields, but if given training, of course this medical record management will still be able to run. One of the problems that arise in the health human resources of the medical records unit is the incompatibility of the health human resources if the Puskesmas medical records unit which will result in a lack of optimality in the management of medical records management (21)(22). In accordance with what is written in PMK No. 33 of 2015, it states that "Medical recorders in providing services must be in accordance with competence, based on education

and training and are obliged to comply with the Medical Recorder Professional Standards”. The emergence of problems like this is referred to in Permenkes No. 33 of 2015, namely the distribution of health human resources must be evenly distributed to optimize public health status. And the results of the study also state that tasks in the medical records unit are still being done together. This happened in Sanggamele’s research in 2018 where there were duplicate tasks caused by the unavailability of staff in the storage management unit (filling) so that the storage task was carried out by assembling officers (23)(24).

Suitability of Standard Operational Procedures (SOP)

Standard Operational Procedures (SOP) is a document that is compiled and which will be used as a guide in carrying out a job in a certain unit where this chronologically arranged document will assist human resources in completing the work that has been determined effectively and efficiently (25). The purpose if an organization must have an SOP in it which aims to ensure that the workforce in it knows the jobdesk that has been determined so that there is no overlap of excessive workload and makes the workforce responsible for its own jobdesk and protects the workforce from errors, ambiguity, inefficiency, and duplication in carrying out a job (26). In this study, it was stated that the management of medical records had carried out their work in accordance with the established SOP as in previous research, a person’s accuracy in carrying out the tasks carried out is very necessary so as not to waste time, energy and costs in vain, this is called efficiency so that this SOP can be run (27). The SOP that has been created has nothing to do with efficiency in the hope that work activities can be carried out precisely, carefully so that there is a match between the goals and targets to be achieved (27).

Facilities and Infrastructure

Taken from the Big Indonesian Dictionary, facilities are something that is used as a tool in achieving certain goals and objectives, and infrastructure itself means everything that is used as a supporting tool in the implementation of a process in achieving goals (28). Based on the results of interviews that have been conducted, it is stated that one of the obstacles in running this medical record unit is the lack of availability of rooms and shelves used as a place to store medical record files, but the agency has provided understanding regarding overcoming this problem which is actually still in the process of procuring additional shelves and rebuilding the Hospital layout which is currently still ongoing, not only that, a poor network connection is also a problem of facilities and infrastructure in medical record management in this Hospital as well as in previous studies, stating that there are similar and common problems, namely problems with facilities and infrastructure such as poor networks, lack of computer equipment for patient registration, lack of medical record file storage folders, and no special room for storing existing medical record files (16). In previous studies, it was shown that there was a significant relationship between work facilities and infrastructure and the performance of medical record employees at Puri Husada Tembilahan Hospital, namely the completeness and availability of existing facilities and infrastructure, which would certainly increase work motivation for medical record employees in the Hospital (17).

Reporting

Medical record analysis and reporting is an important process in health information management. Medical records are detailed documentation of a patient’s medical history, medical care, diagnosis, and treatment outcomes. In this context, analysis and reporting are performed to support clinical decision-making, quality of care evaluation, and health research. Reporting means recapitulating outpatients and inpatients and creating service quality indicators, processing medical record information consisting of internal reporting of health care facilities and external reporting from health care facilities to the Health Office, Ministry of Health, and relevant stakeholders (29).

Reporting in Hospitals is divided into two groups, namely internal and external reports. The function of internal reporting is for the benefit of the Hospital itself which includes all records of the results of activities carried out by the Hospital which will be used by management for performance evaluation, service evaluation, target setting, knowing disease trends, and decision making. While the function of external reporting is for the benefit of the authorized agency above the Hospital which will be given to the Indonesian Ministry of Health, the Provincial Health Office and the District/City Health Office which are directly reported by the Hospital where the resulting report is used for assessment (evaluation) and monitoring in improving program implementation policies and future program planning (30).

Based on Permenkes RI No. 1171/MENKES/PER/VI/2011 concerning Hospital information systems and technical guidelines 2011 contains reporting standards that must be implemented by each Hospital consisting of Recapitulation Reports (RR). Hospitals are required to report the recapitulation report to the Kemenkes RI, Provincial Health Office and Regency/City Health Office which includes RR 1 to RR 5. Reporting will be meaningful if the reported data contains elements of accuracy in terms of time, volume, data sources, collection and processing procedures. One of the indicators of the RR report used as a quality assessment is RR 4a and RR 5 which contains reporting data on morbidity and mortality of hospitalized patients (RR 4a) and visit data (RR 5). The RR 4a dan RR 5 reports produce reports on the top 10 inpatient and outpatient diseases that will be reported to internal and external parties of the Hospital. The report can be used for drug supply planning by looking at the number of cases and disease groups that exist as well as decision making to create a health development plan program by the Hospital. In addition, it is also used for evaluation of disease data by the Indonesian Ministry of Health, Provincial Health Office and District/City Health Office as a basis for countermeasures and preventive actions. In order to provide quality data and information, the data must be complete and correct/valid/accountable. The data collected can be used as the basis for hospital management in improving service quality, making policies, developing strategies in order to achieve a goal, assessment, and decision making so that it is important to validate the data so that valid quality data and information are available and verify the data to check the correctness of data reporting before reporting data. In the implementation of reporting at the UPTD Special Lung Hospital North Sumatra Province, it is in accordance with the applicable SOP, but there are still delays in collecting medical records that are not on time. The return of medical record files in accordance with the SOP when carried out can affect the timeliness of the implementation of Hospital reporting. The delay in returning medical records is due to the fact that there is still a lot of incomplete data that must be filled in by doctors, thus affecting the reporting process to the next stage in making Hospital reporting which has an impact on the delay in reporting (30).

Conclusion

Based on the research conducted, it was found that the UPTD Special Lung Hospital North Sumatra Province still has obstacles in the record medical files management process, namely from

1. The assembling process has obstacles on the incompleteness of patient medical record files due to the inaccuracy of medical personnel.
2. The obstacle in coding and indexing is that the doctor's writing is not clear, making it difficult for coding and indexing officers to input data into the computer.
3. Obstacles in record medical files storage are susceptible to damage from physical aspects, aspects of chemical, biological aspects as well as the theft of the medical record files.

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