

ANALYSIS OF COMPLETENESS OF INPATIENT MEDICAL RECORD FILES IN THE ICU AT THE BLUD BAUBAU CITY HOSPITAL

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A B S T R A C T

Medical records serve to provide health information for medical personnel treating patients. One important indicator in medical record services is the completeness of files, which must be filled out completely with a standard of 100%. This study aims to analyze the completeness of inpatient medical record files using a descriptive quantitative method. The study population consisted of 348 inpatient medical records in the ICU in 2024, with a sample of 78 records taken using the Slovin formula. The results showed that in the identification component, all items in the 78 records were completely filled out (100%). In the important report component, the highest completeness was found in the main diagnosis, discharge status, admission date, and discharge date, all of which were complete in 78 files (100%). The lowest completeness was found in the procedure consent form, with only 37 files (47%) being complete. In the authentication component, medical resumes had the highest completeness with 73 files (94%), while procedure consent had the lowest with 44 files (56%). In the component of good and correct records, the most correct writing was found in the patient's main diagnosis with 78 files (100%). Conversely, the writing of patient names was the lowest, with only 29 files (37%) being correct, while 49 files (63%) contained writing errors. This study emphasizes the importance of completing medical record files completely and accurately to support optimal health services.

INTRODUCTION

In today's modern era, efforts to improve the quality of health care are crucial for improving public health in Indonesia. Therefore, the public needs healthcare facilities that serve as facilitators. Among several institutions, hospitals are among those that act as facilitators (Sugiyanto et al., 2018). Based on the Law of the Republic of Indonesia Number 17 of 2023 concerning Health, it states that a hospital is a health service facility that provides comprehensive individual health services through promotive, preventive, curative, rehabilitative, and / or palliative health services by providing inpatient, outpatient, and emergency services (UUD RI No. 17, 2023). Hospitals as institutions that provide health services are expected to provide high-quality services in order to satisfy patients. The services provided by hospitals are not only limited to medical aspects, but must also include quality supporting services. One of the supporting services for hospitals to operate well is medical records (Rika et al., 2020).

Medical records are a collection of files containing notes and documents related to patient identity, examinations, treatments, procedures, and other services that have been provided to patients (Minister of Health Regulation No. 24, 2022). Medical records are the heart of a hospital because medical records are a source of patient data information that contains complete information regarding patient identity, reasons, types, and methods of service provided during the treatment process, so this document is very useful for identifying, establishing diagnoses, educational and research needs as well as the basis for paying health service costs, and Health statistics data (Febrianta N, 2022). Medical records serve as a source of health information that can be used by all healthcare professionals involved in patient care (Wirajaya & Nuraini, 2019). Therefore, a crucial indicator of medical record services is the completeness of the medical record files themselves (Rika et al., 2020).

According to the Standard Operating Procedure (SOP) at the Baubau City Hospital's Public Service Agency (BLUD), medical record documentation must be completed within 24 hours after the service ends or the patient is discharged, with a completeness standard of 100%. This requirement aims to ensure doctors and staff are accountable for completing all patient information. Doctors who maintain complete medical records play a crucial role in facilitating other healthcare professionals in providing appropriate treatment or therapy to patients. Furthermore, well-completed medical records also serve as a data source for the medical records unit in managing information and compiling reports

that hospital management can use to evaluate and improve the quality of healthcare services. (Gumilar & Leni Herfiyantiz, 2021) .

Previous research conducted by (Sinta & Muzuh, 2020) in the operating room of Baubau City Regional General Hospital showed that of 54 samples of admission and discharge summary forms in the surgical inpatient ward, the most complete items were name, gender, date of birth, and address, each reaching 100%. Conversely, the age item had the highest percentage of incompleteness at 3.70%. In the action completion component, the lowest level of completeness was found in the temperature and pulse graph item, with 21 medical records (38.88%) complete and 33 medical records (61.11%) incomplete.

Based on a preliminary study conducted by researchers at the BLUD Baubau City Hospital regarding the completeness of medical record files, the results of the officer's statement stated that there were still several files that were not completely filled in. Of several rooms, the lowest completeness rate was in the ICU room. So researchers analyzed 10 medical record files and found several components that were incompletely filled in, such as on the *Resume Sheet. medical* , admission and discharge summary, and in the authentication component, sometimes there is no name and signature of the health service provider .

RESEARCH METHODOLOGY

This study was conducted using a quantitative method with a descriptive approach with the aim of obtaining an overview of the completeness of filling out medical record files . The research implementation time was carried out from March to June 2025 at the BLUD RSUD Kota Baubau. The data collection techniques used in this study were observation and also documentation studies, with research variables in the form of patient identity review, review of important reports, authentication review, and review of good records. This study used a quantitative analysis checklist research instrument. In this study, the population used was all inpatient medical record documents in the ICU at the BLUD RSUD Kota Baubau in 2024, with The sampling technique used was random sampling, namely the collection of medical record files from June to December , namely 78 medical record files. This research sample is based on the Slovin formula calculation, namely:

Information :

n = Number of samples

N = Population size

e^2 = Set precision 0.1^2 (0.01)

$$n = \frac{N}{1 + N \times (e^2)}$$

$$n = \frac{348}{1 + 348 \times (0,1^2)} = \frac{348}{1 + 3,48} = \frac{348}{4,48} = 77.67 = 78 \text{ files}$$

RESULTS & DISCUSSION

Analysis of Completeness of Filling in Patient Identification Components

Identification is the process of recording the characteristics or complete information about a person, in this case a patient. The identification section of a medical record must be filled out properly and completely because it is very useful for distinguishing each patient visiting a healthcare facility, thus facilitating and expediting healthcare workers in providing services. Identification data includes at least name, medical record number, gender, place and date of birth, complete address, and religion (Gumilar & Leni Herfiyantiz, 2021) . Completely filling in patient identification data aims to ensure clear information about the owner of the medical record document. The patient identification section of the medical record is administrative data containing demographic information and must be recorded completely. If this data is not filled out properly, the patient's identity cannot be presented accurately, impacting limitations in the provision of statistical data, research, and hospital or healthcare service planning (Rizkika, 2020) .

Table 1. Results Analysis Completeness Filling in the Patient Identification Components

Patient Identification	Amount		n't any	Percentage		n't any
	There is			There is		
	L	TL		L	TL	
No. RM	78	0	0	100%	0	0
Patient Name	78	0	0	100%	0	0
Type Sex	78	0	0	100%	0	0
Date Born	78	0	0	100%	0	0
Age	78	0	0	100%	0	0
Address	78	0	0	100%	0	0

Source: Primary Data 2024

Based on Table 1, it is known that of the total 78 medical record files in the patient identification component, all items were recorded completely (100%). These items include medical record number, name, gender, date of birth, age, and address. The results of this study are in line with research conducted by (Alimin, 2024). Shows that the results of the Completeness of Filling in the inpatient medical record files for OBJGN cases at Buton Tengah Regional Hospital, in the patient identification component with a sample of 36 medical record files, it was found that all items in the identification component had been filled in completely in 36 medical record files (100%).

Identification in medical records is a crucial part that must be completed completely. This helps distinguish each patient and supports the smooth delivery of healthcare services. Research at the Baubau City Hospital's Public Service Agency (BLUD) showed that 78 inpatient medical records in the ICU had completed the patient identification component completely (100%). Therefore, it can be concluded that the patient identification component was very complete and met medical record completeness standards.

Important Report Components

Completeness of the report in the inpatient medical record file includes data that is essential for monitoring the development of the patient's condition. This patient's condition includes the provisional diagnosis, primary diagnosis, discharge conditions, date of hospital admission, and informed consent. This report serves to provide an overview of the medical actions or treatments performed by doctors and nurses during the patient's care process, ensuring accurate, complete, and reliable data to support optimal health (Swari et al., 2019) . A completeness review of the report is carried out to assess whether all reports have been completed according to each patient's needs. All information obtained from the patient is recorded in the medical record. Furthermore, including the date and time on the report is mandatory, as it relates to the rules for filling out medical records and is very important if the report is needed at any time (Setyawati & Zakiyah, 2021) .

Table 2. Results of the analysis of the important report components

Report Important	Amount		n't any	Percentage		n't any
	There is			There is		
	L	TL		L	TL	
provisional diagnosis	41	37	0	53%	47%	0
Primary diagnosis	78	0	0	100%	0	0
Exit state	78	0	0	100%	0	0
Date of entry	78	0	0	100%	0	0
Exit date	78	0	0	100%	0	0
Procedure Approval	37	41	0	47%	53%	0
General Consent	74	4	0	95%	5%	0

Based on Table 2, It is known that the completeness of filling in the important report components with a sample of 78 inpatient medical record files in the ICU, the highest completeness is found in the items Main Diagnosis, Discharge Condition, Admission Date, and Discharge Date with completeness of 78 medical record files (100%). While completeness below 100% is found in 3 items, including :

Temporary diagnosis, namely there are 41 complete medical record files (53%) and there are incomplete 37 medical record files (47%), Based on the findings of the researcher Some temporary diagnosis items are incomplete because sometimes the diagnosis is not written in the temporary diagnosis column, Based on statements from medical record officers that temporary diagnosis items are sometimes not filled in because the doctor is in a hurry to treat patients who come in emergency conditions so that the doctor forgets to fill it in. The results of this study are in line with research conducted by (Bete & Nurvita, 2023) Showing that the results of the completeness of filling in medical record files at the Abepura Regional Mental Hospital in the important report component with a sample of 90 medical record files, the lowest completeness is in the Diagnosis item with a completeness of 37%. The results of interviews with psychiatrists show that the incompleteness of filling in the diagnosis is due to patients who come for further treatment with the same complaints and anamnesis results so that it shortens the time, the doctor only writes ICD-10.

Then, the completeness below 100% is also found in the Procedure Consent form. There are 37 complete medical record files (47%) and 41 incomplete medical record files (53%). And in the General Consent item, there are 74 complete medical record files (95%) and 4 incomplete medical record files (5%). Based on the researcher's findings, several procedural consent sheets and general consent sheets were incomplete because they did not include the date and time of treatment on the form. Based on the officer's statement, this incompleteness was because sometimes the ICU staff were in a rush and forgot to fill it out due to the patient's emergency condition, so the main focus of the staff was to write down previous medical actions.

The completeness of the reporting review aims to check the completeness of all forms of reports according to the needs of each patient's case. The results of research at the BLUD RSUD Baubau City, the completeness of filling in medical record files in important report components is still low, especially for the provisional diagnosis item, with a completeness of only 53%. This incompleteness is caused by the busyness of doctors in treating patients who come in emergency conditions so that doctors forget to fill it out. The procedure and general consultation consent forms are still not 100% complete. This is because ICU staff are sometimes in a rush and forget to fill them out due to the patient's emergency condition, so the staff's main focus is writing down previous medical actions. Therefore, it can be concluded that recording medical record files in the Important Report component is still not good enough, so it has not reached the standard for completeness of medical record files, which is 100%.

Authentication Component Filling

Authentication is the process of proving and recognizing (validating) a person's identity, in this case a doctor or nurse authorized to fill out a patient's medical record. Authentication can be in the form of a full name, signature, seal, initials that can be recognized in the medical record, or a special code in a computerized system. The inclusion of authentication in the medical record is directly related to the doctor in charge and the nurse who provides services and treatment to the patient (Swari et al., 2019) . According to (Minister of Health Regulation No. 269, 2008) concerning Medical Records, every doctor/dentist in carrying out medical practice is required to create a medical record. The creation of a medical record must be immediately and completed after the patient receives service. Every entry in the medical record must be accompanied by the name, time, and signature of the doctor, dentist, or specific health worker who provides direct health services.

Table 3. Results of Analysis of Completeness of Authentication Component Filling

Authentication	Amount			Percentage		
	There is		n't any	There is		n't any
	L	TL		L	TL	
Ring. In & Out	52	26	0	67%	33%	0
Medical Resume	73	5	0	94%	6%	0
Doctor's Orders	72	6	0	92%	8%	0

Nursing Notes	70	8	0	90%	10%	0
Procedure Approval	44	34	0	56%	44%	0
Generic Consent	71	7	0	91%	9%	0

Based on Table 3, it is known that the completeness of filling in the authentication component in the form of the name and signature of the doctor or nurse, with a sample of 78 inpatient medical record files, the highest completeness is found in the Medical Resume Form with completeness in 73 medical record files (94%) and incomplete in 5 medical record files (6%). The lowest completeness is found in the Procedure Approval item with completeness in 44 medical record files (56%) and incomplete in 34 medical record files (44%).

Based on the statement from the officer, the reason for the incomplete filling in of the name and signature of the doctor or nurse is because the doctor is sometimes busy and there are too many patient visits whose status is sometimes in an emergency so that the doctor does not have time to complete the name and signature because he prioritizes service first, so the name and signature are often missed.

The results of this study are in line with the results of research (Nurliani, 2017) which showed that the lowest percentage of completeness of the authentication component was found in the doctor's name item, with 18 medical record documents (47.4%) being completely filled in. This occurs because doctors are busy, so doctors often only sign and the identity section, namely the name, is usually completed by other health workers.

The name and signature of the doctor or nurse are crucial for identifying the doctor or nurse performing the procedure. Research at the Baubau City Hospital's Public Service Agency (BLUD) showed that the lowest level of completeness was found in the procedure approval item, at 56%. This incompleteness is caused by busy doctors and the high number of patient visits, especially in emergency situations, which often results in the names and signatures of doctors and nurses being missed. Therefore, it can be concluded that the completeness of recording the names and signatures of doctors and nurses has not yet reached 100% and is still not optimal.

Good Recording Components

Recording in medical record files must be done correctly because medical records are important useful documents that require special attention. If an error occurs in filling in the data, it is not permitted to delete it in any way but rather Correction of errors is only allowed by providing one line in the wrong part so that it remains legible, then initialed by the officer who made the record (Swari et al., 2019). Medical records are very important, especially for writing diagnoses. If there is an incorrect or incomplete diagnosis, the disease code will automatically be incorrect. This can certainly affect the filling of the disease index and disease data reports at the hospital. (Halimatusaadah & Hidayati, 2022).

Based on the Standard Operating Procedure (SOP) at the BLUD RSUD Kota Baubau regarding the Writing of Names in Medical Record Files, the correct and proper writing of names is, every writing of the patient's name must be completed with the word Ny (Mrs.) for married women and Nn (Miss) for unmarried women, Tn (Sir) for young to old men, An (Child) for boys and girls, By Ny (Baby) for newborn boys and girls who do not have a name so that it is followed by the mother's name.

Table 4. Results of the Analysis of the Completeness of Filling in Good Notes Components

Documentation	Amount			Percentage		
	There is			There is		
	B	TB	n't any	B	TB	n't any
Correct writing (according to SOP)						
Patient name	29	49	0	37%	63%	0
Primary diagnosis	78	0	0	100%	0	0
Rectification of Frustration	0	0	78	0	0	100%

Based on Table 4, it is known that the completeness of filling in the recording components Which Correctly, out of 78 samples of medical record files, it is known that the highest accuracy is in the item of the patient's main diagnosis with the correctness of writing in 78 medical record files

(100%) and the incorrect ones (0%). Meanwhile, in the item of patient name, the number of correctly written names reached 29 files (63%) and the incorrect ones were 49 files (63%). In the Patient Name item, many are incorrect because the writing of the patient's name does not comply with the correct writing rules. Where in the correct writing rules for patient names based on SOP at BLUD RSUD Kota Baubau in writing the patient's name must begin with the words Mr. and Mrs. However, from the results of the study in writing the patient's name with the correct writing rules there are still some that are missed. Based on the results of the statement of the medical record file analysis officer, the writing of many patient names does not comply with the correct writing rules due to the habit factor of officers only writing the patient's name without completing the words Mr. and Mrs. And sometimes the lack of awareness or accuracy of medical officers to include the words Mr. and Mrs.

Furthermore, no corrections were found in the correct documentation component, specifically the error correction item, in the 78 medical record files. This indicates that all medical record files were free from errors in writing or using Tip-Ex, resulting in a 100% error-free rate. This study aligns with research (Aliza, 2023) . which in the clear recording and readability components (Name and diagnosis) of the sample 96 shows that the correctness of the clear recording and readability items is 78 medical record files, while in the error correction item, there are no errors in the recording, namely 89 medical record files (94%).

Recording in medical record files must be done correctly according to writing rules, including how to make corrections without erasing or using tip-ex. Instead, by crossing out one line and providing the officer's initials. Based on research at the BLUD RSUD Kota Baubau, the completeness of the recording shows that the writing of the main diagnosis is 100% correct, but in the item writing the patient's name only 63% is in accordance with the writing rules, because the officer does not add the prefix "Mr." or "Mrs." as stated in the SOP. This is caused by habit factors, lack of accuracy, and low awareness of officers in following correct writing standards. Meanwhile, in terms of documenting corrections to errors, all medical record files (100%) were not found to use tip-ex or recording errors, so they meet the standards. Thus, it can be concluded that the aspect of medical record recording at the BLUD RSUD Kota Baubau is quite good, although there are still shortcomings in writing patient names that need to be improved according to the SOP.

CONCLUSION

Based on the results of research on the completeness of filling in the medical record files for inpatient care in the ICU at the BLUD Baubau City Hospital for 78 samples, it can be concluded that: Completeness of filling in the Inpatient medical record file in the ICU room based on the patient identification component, each item has been filled in completely so that it reaches a completeness figure of 100% . In the important report component, the highest completeness is found in the items of Main Diagnosis, Discharge Condition, Admission Date, and Discharge Date with completeness of 78 medical record files (100%) and the lowest completeness is found in the procedure approval item with complete 37 medical record files (47%) and incomplete 41 medical record files (53%) , while in the authentication component, the highest completeness is found in the Medical Resume Form with completeness of 73 medical record files (94%) and the lowest completeness is found in the procedure approval form with completeness of 44 medical record files (56%) , Then in the Completeness of filling in the Inpatient medical record files based on the good and correct recording components, the lowest completeness is in the Patient Name item, with the correct name writing rules totaling 29 medical record files (37%), while TB Writing Totals 49 medical record files (63%) . In addition, in the correct documentation component, there were no corrections to writing errors in 78 medical record files, so that the figure reached Not 100% .

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