

## INCOMPLETE MEDICAL RECORDS AS A RISK FACTOR FOR DELAYED RETURN OF MEDICAL RECORD FILES

Mochammad Malik Ibrahim<sup>1\*</sup>

<sup>1</sup>STIKES Arrahma Mandiri Indonesia

\*Email: [mochammad.malik.ibrahim@gmail.com](mailto:mochammad.malik.ibrahim@gmail.com)

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### ABSTRACT

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### Keywords:

**Completeness; Medical  
Records; Timeliness**

**Background:** Complete and timely medical records play an important role in health services, according to SOP at Aisyiyah Siti Fatimah Hospital, which states that the return of medical record documents is 2x24 hours. Where the results in the introduction showed that there was an inaccuracy in the return time and incomplete filling in the discharge summary. **Method:** This study used quantitative analytical methods and a cohort design, and logistic regression analysis. The number of samples used was 70 medical record documents, and the research instrument used was a checklist. **Results:** There was an incomplete discharge summary with a percentage of 67.1% while the return documents were not on time there were 51.4% and the RR value = 15.714 which was proven to affect the delay in returning medical record documents was the incompleteness of the discharge summary form, there was a probability value of 70% indicating that the incomplete discharge summary had a probability of inaccurate return. **Conclusion:** There is still an incomplete discharge summary form and a late return of medical record documents. Therefore, researchers can suggest that hospitals hold regular outreach regarding the importance of completeness and timeliness of returning medical record documents.

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## 1. INTRODUCTION

Medical records have a crucial role in supporting improvements in the quality of health services. Problems regarding the submission of medical record documents can hinder services to patients.<sup>1</sup> Submission of medical record documents beyond the time limit can burden employees in data processing, which can also affect the information contained in the medical record documents.<sup>2</sup>

Filling in clinical information or recording must be done completely, clearly, and after the patient has received health care, and must include the name, time, and signature of the health worker providing the health service.<sup>3</sup>

Proper medical records can improve the quality of health services by providing

useful information for evaluation and design to provide medical services to patients. However, if the implementation is not done properly, it can cause delays in the process of returning the document. If returned according to the time provisions, it is one of the efforts to create a quality medical record management system.<sup>4</sup>

Meanwhile, in Indonesia, there are still problems regarding the inappropriate time for returning medical record files, one of which is at Kariadi General Hospital, Semarang, where 331 (21%) medical record files were returned to the medical record unit more than 2x24 hours after they were returned. According to research, medical record documents must be returned in complete condition.<sup>5</sup>

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\* Author Correspondence: Mochammad Malik Ibrahim, STIKES Arrahma Mandiri Indonesia, [mochammad.malik.ibrahim@gmail.com](mailto:mochammad.malik.ibrahim@gmail.com), +62895339120825

Meanwhile, at Estomihi Hospital Medan, there was a delay in returning medical record documents, with a percentage of 72.41% of the total sample of 87 documents.<sup>6</sup> There are preliminary study results at the Aisyiyah Siti Fatimah Hospital in Sidoarjo, a summary of incomplete discharged patients with a percentage of 64%, while the delay in returning was 52%, with a sample size of 20. The reason for the discrepancy in the submission of medical record documents is that medical personnel have not completed the documents, which can result in delays in the submission of medical record documents<sup>7</sup>.

Problems in several hospitals have been conveyed in line with the problems of this research, in this research there was a gap between the research and the results of initial observations at the Aisyiyah Siti Fatimah Hospital, showing that the completeness of filling out the inpatient discharge summary was incomplete with a percentage of 64% (16 forms) of the 25 samples in the inpatient medical record files and there was a problem of inaccuracy in returning the inpatient medical record with a category of 52% not on time.

Medical record documents must be filled out completely immediately after the patient goes home, after which the completed medical record documents can be returned from the treatment room to the medical records unit.<sup>6</sup>

This study aimed to explain the variable of incomplete patient discharge summaries as a risk factor for delays in returning medical record documents.

## 2. METODE

The type of research used is analytical quantitative research, where research data involves the use of numbers and analysis using statistical methods.<sup>8</sup>

With a cohort study design based on filling out the discharge summary so that it is followed by punctuality until a certain period, delays can be identified.<sup>9</sup> In this

Study, this design was chosen to observe the effect of the cause (incomplete filling) with the result (delay in file return time), obtain the relative risk (RR) value directly, and be able to follow the development of the group (medical record files) being observed until the delay occurs.<sup>10</sup> The sampling method is consecutive sampling, and data collection in this study uses a checklist sheet instrument regarding the completeness of the discharge summary and delays in inpatient medical record documents in January at Aisyiyah Siti Fatimah Hospital. The number of samples used by this researcher is 70 medical record documents. Frequency distribution data analysis displays univariate and bivariate data with chi-square data analysis, and logistic regression analysis is used to see the magnitude of the effect of completeness on return time by displaying the Relative Risk (RR) value.

## 3. RESULTS AND DISCUSSION

### Univariate analysis

The univariate results in this study describe the frequency distribution as follows:

Table 1. Frequency distribution of completeness of filling out patient discharge summaries and timeliness of submission of inpatient medical record documents

Variables	<i>Medical Record Documents</i>	
	f	%
<b>Patient discharge summary</b>		
Incomplete	47	67,1
Complete	23	32,9
<b>Punctuality</b>		
Late	36	51,4
On time	34	48,6

Table 1 shows that most of the discharge summaries are incomplete, with a

The percentage of 67%, and if viewed in terms of timeliness of return, most are late, with a percentage of 51.4% greater when compared to those that are on time.

The results of this study are supported by Ratna, Ibrahim dan Sari, (2022)<sup>11</sup> The incompleteness in completing medical record documents amounts to 118 documents, representing 71.1%, whereas the delay in returning these records is 93 documents, indicating a percentage of 56%. The lack of completeness in filling medical record documents leads to delays in their return.

Ibrahim (2023)<sup>12</sup> Argues that the completeness of filling out medical record archives is very important in ensuring the timeliness of delivery of medical record archives. Based on his research, incomplete filling out of the form does not affect the emergence of a guarantee of returning medical record files.

The results of the researcher's observations, filling in medical records completely and on time, have not been carried out optimally. The delay in returning

medical record documents is caused by several factors, including the diagnosis not being filled in and the discharge summary not being filled in completely.<sup>13</sup>.

Delays in returning medical records can occur due to incomplete or inaccurate medical records. This makes it difficult to make reports both externally and internally. Therefore, the management of the medical record return system is very important in the medical record unit.<sup>14</sup>.

According to the researcher's analysis, incomplete patient discharge summary forms can affect the BPJS claim process, the accumulation of medical record documents, this is shown that the employee responsible for filling out the patient discharge summary form must be completed immediately so that it can be returned by the SOP for returning medical record documents, namely 2x24 hours.

### **Bivariate analysis**

The results of the bivariate analysis of the data revealed the following relationships:

Table 2. Bivariate analysis of the Chi-Square Test and the Magnitude of the Risk of Inaccurate Return Time.

Variabel	Return Time:				RR	p-value
	Late	%	On time	%		
Patient Discharge Summary						
Incomplete	33	70,2	14	29,8	5,383	0,000
Complete	3	13,0	20	87,0		

Table 2 shows that incomplete discharge summary filling with untimely return of medical record documents has a percentage of 70.2% greater when compared to incorrect discharge summary filling with timely return of 29.8%. The results of this percentage difference are in line with the results of the chi-square test showing that the variable is proven to be related to the timeliness of returning the discharge

summary medical record document ( $p = 0.000$ ) and the magnitude of the risk can be seen with the RR value = 5.383 which can be interpreted as incomplete discharge summary has a risk of 5 times greater inaccuracy in the timeliness of returning medical record documents compared to complete discharge summary forms. The next analysis is a logistic regression test with the enter method to test the magnitude of the

Influence of the completeness of filling in the discharge summary on the timeliness of returning inpatient medical record documents. The initial step requires an independent variable that is used as a test candidate, namely a variable that in the bivariate analysis (chi-square test) has a p value <0.25. The summary variable for

Discharge shows a p-value test result of  $0.000 < 0.05$ . This result shows that the summary variable for discharged patients is a suitable candidate for the logistic regression test.

Table 3. Results of logistic regression tests of summary variables of discharged patients that influence the timeliness of returning medical record documents of inpatients.

Variables	$\alpha$ (Constant)	$\beta$ (Coefficient)	p-value	RR
Incomplete Discharge Summary Form	-1,897	2,755	0,000	15,714

The findings from the logistic regression analysis indicated that the factors identified to affect the delays in the return of medical record documents were incomplete discharge summary forms ( $p = 0.000$  and  $RR = 15.714$ ), which can be seen in Table 3. The RR value of 15.714 means that an incomplete return summary form has a 15 times greater risk of late return compared to a complete return summary form.

The results of the enter method showed that the incomplete form ( $b_1 = 2.755$ ). The value of the probability of delays in returning medical record documents can be calculated using the regression equation formula =.

$$y = a + b_1X_1 + b_iX_i$$

$$y = -1,897 + 2,755.X_1$$

$$P = \frac{1}{1 + e^{-(a + b_1X_1 + b_iX_i)}}$$

$$P = \frac{1}{1 + e^{-(-1,897 + 2,755(1))}}$$

$$= 0,70 \times 100 \% = 70\%$$

The calculation results show that incomplete discharge summary forms have a 70% chance of causing delays in returning medical record documents, and can be influenced by other factors including the limited time for doctors to fill out the discharge summary sheet, SOPs not being

implemented optimally, and frequent computer errors that hinder the work of officers in creating data reports on the completeness of medical records.<sup>15</sup>

This research aligns with the findings of Manag, (2016)<sup>16</sup>, who identified a connection between the thoroughness of medical resumes and the precision of returned medical record files, with a p-value of 0.0001, which indicates statistical significance ( $p < 0.05$ ). And the OR value = 14.461, which means that complete medical resumes are 14.461 times more likely to be returned on time compared to incomplete medical resumes.

According to research conducted by Erliandi (2019)<sup>6</sup> The delay in submitting medical record documents is often caused by doctors who do not fill in the patient's documents completely. Moreover, the finalized documents are not promptly sent back to the medical records unit by nurses because of their workload in the inpatient area.

Medical records are considered timely if they have been fully completed by the doctor within 1x24 hours after the patient arrives home, and the medical record documents are sent back from the unit to the medical records section within a maximum of 2x24 hours.<sup>5</sup>



Based on the results of the study, the researcher assumes that the completeness of the discharge summary is related to the return of medical record documents, the discharge summary should be completed immediately and returned by the existing SOP at the Aisyiyah Siti Fatimah Hospital. And hold regular socialization regarding the importance of completeness in returning medical record documents on time.

#### 4. CONCLUSION

It can be concluded that the majority of incomplete discharge summaries with a percentage of 67.1%, while the return time category is not on time with a percentage of 51.4% and has a RR value of 15.714 where incomplete discharge summaries have a 15 times greater risk of delay and there is a probability value of 70% indicating that incomplete discharge summaries have a probability of delaying the return of medical record documents.

Suggestions that can be given to the hospital include conducting training related to the completeness of filling out medical record files and the quality of medical records and it is also suggested that regular socialization is needed regarding the importance of completeness for the timeliness of returns and providing rewards for employees who fill in completely and on time by the SOP.

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