

Relationship of Accreditation Status with Completeness of Medical Record Documents for Inpatients at the Hospital

1st Puji Lestari
Universitas Duta Bangsa Surakarta
Surakarta, Indonesia
pujilestari63570@gmail.com

2nd Amalia Devi Fitriatama Arbi
Universitas Duta Bangsa Surakarta
Surakarta, Indonesia
amaliyaafafa@gmail.com

3rd Ismini Putri Robbaniyah
Universitas Duta Bangsa Surakarta
Surakarta, Indonesia
isminiputri@gmail.com

4th Devi Pramita Sari
Universitas Duta Bangsa Surakarta
Surakarta, Indonesia
devi_sari@udb.ac.id

Abstract—This research aims to analyze differences in the completeness of inpatient medical record documents before and after accreditation at Pandan Arang Hospital, Boyolali. The research method used in this research is a type of analytic study and a cross sectional study design. The results of this research were 9 inpatient medical record documents before accreditation with a percentage of 18% complete and 41 with a percentage of 82% incomplete. Meanwhile, in the completeness of medical record documents after accreditation as many as 16 with a percentage of 32% complete and 34 with a percentage of 68% incomplete. The completeness of medical record documents before and after accreditation has increased but in statistical calculations it does not increase but is significant, statistical tests using the chi-square test result in p value > 0.106 so that H_0 is rejected and H_a is accepted, so there is no difference in the completeness of the medical record documents of hospitalized patients. stay before and after accreditation.

Keywords—Completeness, Documents, Before, After, Accreditation

I. INTRODUCTION

Medical records are files containing notes and documents about patient identity, inspection, medication, actions and other services that have been provided to patients [1]. In order to provide quality service, medical records must be filled in completely after the patient has received health care. Efforts to improve the quality of hospital services need to know the importance of quality assurance, quality assurance is a continuing program that is structured objectively and systematically to assess the quality and reasonableness of care to use opportunities to improve patient care and solve problems that are revealed [2].

Quantitative analysis is a study or review of certain parts of the contents of medical records in order to find specific deficiencies related to medical record recording [3]. In quantitative analysis there are 4 reviews including identification reviews, recording reviews, reporting reviews, authentication reviews.

Based on the results of the observations made, the survey proved that the medical record documents before and after accreditation of inpatients were often incomplete in filling out forms. In the quantitative analysis, the writer analyzed 10 medical record documents, each of which was 5 documents before accreditation and 5 documents after accreditation

which were taken randomly. The percentage obtained was 100% completeness in the recording review, while the incompleteness was 80% in the authentication review contained in the signature item and bright name, 90% reporting review contained in the item hour and inspection date, 60% identification review contained in room items.

The purpose of this research was to determine the relationship between the completeness of inpatient medical record documents before and after accreditation. Based on the above background, therefore the authors make a problem formulation whether there is a relationship between the completeness of inpatient medical record documents before and after accreditation. This research was conducted at the Regional General Hospital Pandan Arang Boyolali.

II. METHOD

This type of research used by the author is analytical research. The analytical research method is to know how far the contribution of certain risk factors to the existence of a certain event (effect) [4] regarding the differences in the completeness of inpatient medical record documents before and after accreditation at Pandan Arang Regional General Hospital, Boyolali. This research used a cross sectional approach. The reason for this research is because the researchers looked at the factors and causes and effects that occurred in the inpatient medical record documents before and after accreditation simultaneously at the Pandan Arang Regional General Hospital, Boyolali in 2016.

Basically, research variables are anything in the form that is determined by the researcher to be studied in order to obtain information about it and then draw conclusions [5]. In this research, there are two variables, namely the independent variable and the dependent variable. The independent variable in this research is the medical record document of inpatients before and after accreditation. The dependent variable in this research was the completeness of medical record documents of inpatients before and after accreditation.

Population is a source of data needed in a study [6]. The population in this research was obtained from inpatient medical record documents before accreditation and after accreditation, so the population in this study was 30,050 medical record documents. Sampling in this research used the Slovin formula [7], where the sample to be examined in this

study was 100 documents, namely by taking 50 medical record documents before accreditation and 50 medical record documents after accreditation. Sampling in this research using simple random sampling technique, namely dividing the number or members of the population in a simple random way using random numbers.

There are two data sources in this research, namely primary data and secondary data. Where primary data were obtained from interviews with medical record officers and direct observation of the completeness of inpatient medical record documents before and after accreditation. Meanwhile, secondary data were obtained from inpatient medical record documents before and after accreditation.

In this research, using two data analyzes, namely univariate data analysis and bivariate data analysis. Univariate data analysis was performed on each variable from the research results. And bivariate analysis used in this study to analyze differences in the completeness of medical record documents before and after accreditation using the Chi Square statistical test, with a degree of truth of 95%.

III. RESULT

A. Results of Completeness Analysis of Inpatient Medical Record Documents Before Accreditation At Pandan Arang Hospital, Boyolali, 2016

Completeness of inpatient medical record documents prior to accreditation by taking a sample of 50 medical record documents prior to accreditation, based on this research there are complete and incomplete medical record documents with the following percentage:

Table 1. Percentage of inpatient medical record documents before accreditation

Analysis Result	Amount of Document	Percentage
Complete	9	18%
Incomplete	41	82%
Amount	50	100%

Based on table 1., the percentage of completeness in medical record documents before accreditation is that 9 documents are complete with a percentage of 18% and there are 41 incomplete medical record documents with a percentage of 82%. Of the 50 medical record documents before accreditation, the completeness of medical record documents can be seen in detail based on quantitative analysis with 4 reviews as follows:

Table 2. Quantitative Analysis of Inpatient Medical Record Documents Before Accreditation

No	Review	Complete		Incomplete	
		Amount	Percentage	Amount	Percentage
1	Identification	13	26%	37	74%
2	Reporting	10	20%	40	80%
3	Autentification	10	20%	40	80%
4	Recording	47	94%	3	6%

Based on table 2., the results of the quantitative analysis of medical record documents before accreditation show that the highest level of completeness is in the recording review of 94%. The highest incompleteness was found in

reporting reviews and authentication as many as 40 medical record documents with a percentage of 80%.

1. Review identification of filling in inpatient medical record documents before accreditation consisting of items of medical record number, name, address, age, gender, religion, room and can be seen in detail as follows:

Table 3. Quantitative Analysis on Document Identification Review of Inpatient Medical Records Before Accreditation

No	Item Reviewed	Complete		Incomplete	
		Amount	Percentage	Amount	Percentage
1.	Medical Record Number	50	100%	0	0%
2.	Name	50	100%	0	0%
3.	Address	50	100%	0	0%
4.	Age	50	100%	0	0%
5.	Gender	50	100%	0	0%
6.	Religion	50	100%	0	0%
7.	Room	13	26%	37	74%

Based on table 3., the medical record document before accreditation in the identification review shows that the highest completeness is in the medical record number item, name, address, age, gender, religion by 100%. The highest incompleteness was found in room items as many as 37 medical record documents with a percentage of 74%.

2. Review reporting on the filling of inpatient medical record documents before accreditation consisting of time, date, and a must-have report that can be seen in detail as follows:

Table 4. Quantitative Analysis on Reporting Document Review of Inpatient Medical Records Before Accreditation

No	Item Reviewed	Complete		Incomplete	
		Amount	Percentage	Amount	Percentage
1.	Time	12	24%	38	76%
2.	Date	14	28%	36	72%
3.	A must-have report	34	68%	16	32%

Based on table 4. in the medical record document before accreditation in the reporting review, it shows that the highest completeness is in the report items a must-have report by 68%. The highest incompleteness was found in item time as many as 38 medical record documents with a percentage of 76%.

3. Review of authentication of filling in inpatient medical record documents before accreditation consisting of signature items and full names can be seen in detail as follows:

Table 5. Quantitative Analysis on Document Authentication Review of Inpatient Medical Records Before Accreditation

No	Item Reviewed	Complete		Incomplete	
		Amount	Percentage	Amount	Percentage
1.	Signature	30	60%	20	40%
2.	Full Name	9	18%	41	82%

Based on table 5., the medical record document before accreditation in the authentication review shows that the highest completeness is in the signature item by 60%. The

highest incompleteness was in full name items as many as 41 medical record documents with a percentage of 82%.

4. Reviewing the recording of filling in inpatient medical record documents before accreditation consisting of items, no wiper liquid, no scribbles without signature, nounstandard abbreviated symbols can be seen in detail as follows:

Table 6. Quantitative Analysis on Recording Review of Inpatient Medical Records Documents Before Accreditation

No	Item Reviewed	Complete		Incomplete	
		Amount	Percentage	Amount	Percentage
1.	No Wiper Liquid	50	100%	0	0%
2.	No Scribbles Without Signature	47	94%	3	6%
3.	No Unstandard Abbreviations Symbol	49	98%	1	2%

Based on table 6., the medical record document before accreditation in the recording review shows that the highest completeness is in the item that there is no wiper liquid by 100%. The highest incompleteness was in the item that there were no scribbles without a signature as many as 3 medical record documents with a percentage of 6%.

B. Results of Analysis of Completeness of Inpatient Medical Record Documents After Accreditation at Pandan Arang Hospital, Boyolali, 2016

Completeness of Inpatient Medical Record Documents After Accreditation by taking a sample of 50 medical record documents after accreditation, based on this research there are complete and incomplete medical record documents with the following percentage:

Table 7. Percentage of Inpatient Medical Record Documents Completeness After Accreditation

Analysis Report	Amount of Document	Percentage
Complete	16	32%
Incomplete	34	68%
Amount	50	100%

Based on table 7., the percentage of completeness in medical record documents after accreditation is that there are 16 complete documents with a percentage of 32% and there are 34 incomplete medical record documents with a percentage of 68%. Of the 50 medical record documents after accreditation, the completeness of medical record documents can be seen in detail based on quantitative analysis with 4 reviews as follows:

Table 8. Quantitative Analysis of Inpatient Medical Record Documents after accreditation

No	Review	Complete		Incomplete	
		Amount	Percentage	Amount	Percentage
1	Identification	16	32%	34	68%
2	Reporting	16	32%	34	68%
3	Autentification	16	32%	34	68%
4	Recording	49	98%	1	2%

Based on table 8., the results of the quantitative analysis of medical record documents after accreditation show that the highest completeness is in the record review of 98%. The highest incompleteness was found in the identification

review, reporting and authentication of 34 medical record documents with a percentage of 68%.

1. Review identification of filling in inpatient medical record documents before accreditation consisting of medical record number items, name, address, age, gender, religion, room can be seen in detail as follows:

Table 9. Quantitative Analysis on Review of Document Identification of Inpatient Medical Records After Accreditation

No	Item Reviewed	Complete		Incomplete	
		Amount	Percentage	Amount	Percentage
1.	Medical Record Number	39	78%	11	22%
2.	Name	41	82%	9	18%
3.	Address	39	78%	11	22%
4.	Age	38	76%	12	24%
5.	Gender	38	76%	12	24%
6.	Religion	47	94%	3	6%
7.	Room	15	30%	35	70%

Based on table 9., the medical record document after accreditation in the identification review shows that the highest completeness is found in religious items at 94%. The highest incompleteness is in room items as many as 35 medical record documents with a percentage of 70%.

2. Review reporting on the filling of inpatient medical record documents before accreditation consisting of time, date, a must-have record can be seen in detail as follows:

Table 10. Quantitative Analysis on Reporting Document Review of Inpatient Medical Records After Accreditation

No	Item Reviewed	Complete		Incomplete	
		Amount	Percentage	Amount	Percentage
1.	Time	18	36%	32	64%
2.	Date	18	36%	32	64%
3.	A must-have report	38	76%	12	24%

Based on table 10., the medical record document after accreditation in the reporting review shows that the highest completeness is in the report items a must-have report by 76%. The highest incompleteness was found in the time and date items as many as 32 medical record documents with a percentage of 64%.

3. Review of the authentication of filling in inpatient medical record documents before accreditation consisting of signature items and full names can be seen in detail as follows:

Table 11. Quantitative Analysis on Review Autentification of Inpatient Medical Record Documents after Accreditation

No	Item Yang Direview	Complete		Incomplete	
		Amount	Percentage	Amount	Percentage
1.	Signature	26	52%	24	48%
2.	Full Name	18	36%	32	64%

Based on table 11., the medical record document after accreditation on the authentication review shows that the highest completeness is in the signature item by 52%. The highest incompleteness was found in full name items as many as 32 medical record documents with a percentage of 64%.

4. Review records of filling in inpatient medical record documents prior to accreditation consisting of items that contain no wiper liquid, no scribbles without signature, no unstandard abbreviated symbols can be seen in detail as follows:

Table 12. Quantitative Analysis on Reviewing Recording of Inpatient Medical Records Documents After Accreditation

No	Item Yang Direview	Lengkap		Tidak Lengkap	
		Jumlah	Persentase	Jumlah	Persentase
1.	No Wiper Liquid	49	98%	1	2%
2.	No Scribbles Without Signature	49	98%	1	2%
3.	No Unstandard Abbreviations Symbol	49	98%	1	2%

Based on table 12. in the medical record document after accreditation in the recording review, it shows that the highest completeness is in the item that there is no wiper liquid, no scribbles without signature, no unstandard abbreviation symbol by 98%. The highest incompleteness is in the item that there is no wiper liquid, no scribbles without a signature, no unstandard abbreviated symbols as much as 1 medical record document with a percentage of 2%.

C. Relationship of Accreditation Status with Completeness of Inpatient Medical Record Documents Before and After Accreditation at Pandan Arang Hospital, Boyolali, 2016

1. Based on the results of research conducted on the completeness of inpatient medical record documents before and after accreditation, it can be seen in table 13. as follows:

Table 13. Crosstabulation of Completeness of Medical Record Documents for Inpatients Before and After Accreditation.

Completeness \ Accreditation	Complete		Incomplete		Total	
	N	%	N	%	N	%
	Before	9	18%	41	82%	50
After	16	32%	34	68%	50	100%

Based on table 13., cross tabulation of the completeness of inpatient medical record documents before and after accreditation shows that the completeness of inpatient medical record documents before accreditation 41 (82%) incomplete documents were more than 9 (18%) complete documents. After accreditation, there were 34 (68%) more incomplete documents compared to 16 (32%) complete documents. So that the completeness of inpatient medical record documents after accreditation is higher than the completeness of inpatient medical record documents after accreditation.

2. Based on the results of calculations using chi-square, the following results can be obtained:

Table 14. Results of Bivariate Analysis Using the Chi-square Test Relationship of Accreditation Status with Completeness of Inpatient Medical Record Documents

Odd Ratio	95% Confidence Interval		P
	Lower	Upper	
2,144	0,842	5,459	0,106

Based on table 14., the calculation of the chi-square value p value = 0.106, which means that the p value > 0.05 means that Ha is rejected and Ho is accepted, from the calculation results the decision is that there is no relationship between accreditation status and the completeness of medical record documents of inpatients before and after accreditation. The odd ratio value is 2.144, which means that each document of inpatient medical record after accreditation can have a chance of 2.1 times more complete than the medical record document of inpatients before accreditation. Where the inpatient medical record documents after accreditation have a smaller chance of being 0.842 times complete and the greatest chance of being 5.459 times complete compared to the completeness of medical record documents before accreditation.

IV. CONCLUSION

Based on research conducted at Pandan Arang Hospital, Boyolali, conclusions can be drawn, among others: the completeness of inpatient medical record documents before accreditation is 9 (18%) complete medical record documents from 41 (82%) incomplete medical record documents. Incomplete medical record documents are caused by factors of human resources, limited time, and disciplinary officers. The medical record officer will give color stickers on the sheets that are not completely filled in. Completeness of inpatient medical record documents after accreditation has increased from before accreditation, namely 16 (32%) complete medical record documents and 34 (68%) incomplete medical record documents. Where the relationship between accreditation status and the completeness of medical record documents of inpatients increases, while in statistical tests it does not increase but it is significant. So it can be concluded that there is no relationship between accreditation status and the completeness of inpatient medical record documents at Pandan Arang Hospital, Boyolali, 2016.

REFERENCES

- [1] Menteri Kesehatan Republik Indonesia. 2008. Permenkes No. 269/MENKES/PER/III tahun 2008 tentang Rekam Medis. Jakarta: Menteri Kesehatan Republik Indonesia.
- [2] Sabarguna, B.S. 2008. *Quality Assurance Pelayanan Rumah Sakit*. Konsorsium Rumah Sakit Islam Jateng - DIY. Yogyakarta.
- [3] Sudra, Rano Indradi. 2014. *Rekam Medis*. Semarang: Graha Ilmu.
- [4] Notoatmodjo, Soekidjo. 2014. *Metodologi Penelitian Kesehatan*. Jakarta: Rineka Cipta.
- [5] Sugiyono. 2016. *Metode Penelitian Kualitatif, Kuantitatif dan R&D*. Bandung: Alfabeta.
- [6] Anggraeni, D.M & Saryono. (2013). *Metodologi Penelitian Kualitatif dan Kuantitatif dalam Bidang Kesehatan*. Yogyakarta: Nuha Medika.
- [7] Siregar Syofian. 2010. *Statistik Deskriptif untuk Penelitian Dilengkapi Perhitungan Manual Dan Aplikasi Spss Versi 17*. Jakarta : Rajawali Pers.