# Analysis Of Inpatient Medical Record Management Based On Medical Record Service Standards At Government Hospitals In Medan

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#### Abstract.

Inpatient medical records have an important role as a source of data and health information for inpatients related to treatment and care planning. The main factor that causes problems in inpatient medical records is the undisciplined factor of the person in charge who handles patients in filling out medical records. This can cause inpatient medical record management, not in accordance with medical record service standards. This study aimed to analyze inpatient medical record management based on medical record service standards. This research is a quantitative analytic study with a cross-sectional approach. The study was conducted at the Government Hospital in Medan. The research population was 126 people and all of them were used as samples. Sampling by means of total sampling. Data analysis used univariate, bivariate with chi-square test, and multivariate with multiple logistic regression at 95% confidence level (0.05). The results showed that inpatient medical record management implementation based on medical record service standards at the Government Hospital in Medan was influenced by work motivation (p = 0.001) and supervision (p = 0.000). While the variables that have no effect are length of work (p = 1,000), education (p = 0.848), teamwork (p = 0.848) 0.241), and completeness of infrastructure (p = 0.760). The supervision variable is the most dominant variable or has the greatest influence with the value of Exp(B)/OR = 19,542. Medical record employees who state that supervision is carried out well by superiors will improve the implementation of inpatient medical record management well, compared to those who state that supervision is still not good. It is recommended that the leadership carry out inherent supervision (waskat) to all medical record employees and provide motivation through motivational seminars to improve the implementation of inpatient medical record management based on medical record service standards.

Keywords: Management, Medical Records, Hospitalization.

## I. INTRODUCTION

The city of Medan has both government and private hospitals. Government hospitals in the city of Medan, namely RSUP H. Adam Malik Medan owned by the provincial government of North Sumatra and Dr. Regional General Hospital. Pirngadi Medan is owned by the Medan City Government. The two government hospitals are referral hospitals for patients from Puskesmas in Medan City and North Sumatra Province. RSUP H. Adam Malik Medan and RSUD dr. Pirngadi Medan uses service standards on the basis of the Decree of the Minister of Health of the Republic of Indonesia based on No.129/Menkes/SK/II/2008 that the service standard at the hospital is a health facility to provide services to the community that has a strategic nature to be further improved at the level of public health.Medical records have written or recorded patient information on identity, anamnesis, laboratories, physical determinations, diagnoses to medical actions given to patients who are hospitalized, outpatient to emergency services (Nugraheni, 2015). Organizing medical records is an activity process that begins when the patient arrives until the patient goes home or dies, which includes recording patient medical data and handling medical record files, namely storage and retrieval of medical record files for the purpose of borrowing medical records files (Huffman, 2017).

The main factor causing the delay in taking inpatient medical records, namely the Human Resources (HR) factor is the indiscipline of the doctors in charge who handle these patients in filling out medical records, especially on medical resumes. This can lead to the management of inpatient medical records not

being in accordance with medical record service standards (Alfath, 2020). The preliminary survey that the researchers conducted was by observing the medical records of inpatients at H. Adam Malik General Hospital Medan and Dr. Pirngadi Medan that the management of medical records has not been done properly. This can be seen from the irregular archiving and processing of data or documents so that patient documents accumulate. The time for providing medical record files to the front office desk of 20 patients reached an average of 5.4 minutes, while the standard response time was determined by the installation of medical records at H. Adam Malik Hospital Medan and Dr. RSUD. Pirngadi Medan is 3 minutes away. Other problems found in the administration of medical records at H. Adam Malik Hospital Medan and Dr. RSUD. Pirngadi Medan started from filling in incomplete medical records of inpatients (misfiles) to the occurrence of multiple medical records. This can lead to complaints from both doctors regarding medical services and from patients who are hospitalized. Based on the description above, the researcher is interested in taking the title "Analysis of Inpatient Medical Record Management Based on Medical Record Service Standards at Government Hospitals in Medan".

### II. LITERATURE REVIEW

### 2.1. Medical Records Management

Based on the Regulation of the Minister of Health of the Republic of Indonesia Number 269/MENKES/PER/III/2008 concerning Medical Records, it is explained that what is meant by a medical record is a file containing records and documents regarding patient identity, examination, treatment, actions and other services that have been provided to patients. Minister of Health of the Republic of Indonesia, 2008). Furthermore, the Regulation of the Minister of Health of the Republic of Indonesia (Permenkes RI) No. 55 of 2013 concerning the implementation of medical record work in Article 1 states that the management of medical records and health information services is an activity to maintain, maintain and serve medical records both manually and electronically to present health information in hospitals, clinical doctor practices, health insurance, health facilities, health services and others who provide health services and maintain records (Permenkes RI, 2013).

Medical record management is an activity of caring for and maintaining medical/health records both in traditional (paper-based) and electronic forms in doctor's clinics, hospitals, insurance companies, health departments, and other facilities that perform health record maintenance and services. It is now very necessary and unavoidable to use extensive and complex computer systems in recording health services and other sources of information, so it has become a consequence that the field of health information technology and health informatics has become a much needed professional in the practice of health information management. & Muchtar, 2018). The purpose of medical records is to support the achievement of orderly administration in the context of efforts to improve health services in health services. Without the support of a good and correct medical record management system, administrative orders will not work as expected (Budi, 2018). The function of medical record documents for hospitals is as a source of memory and as a source of information in order to carry out planning, analysis, decision making, assessment, and accountability as well as possible (Simanjuntak & Shella, 2020).

### 2.2. Patient

Patient data consists of administrative data and clinical data. Administrative data includes demographic data, closest family, finances, as well as other written information related to patients such as letters of approval, power of attorney that requires a statement of approval/rejection from the patient, and identification of health care facilities, while clinical data includes health data in the form of patient complaints, observations, test results, which are then compared, combined, and interpreted by doctors and other health care providers to form information about the disease or condition that is bothering the patient. Doctors use this data and information to diagnose diseases, develop treatment plans, assess the effectiveness of care, and determine patient prognosis (Unbrah ARS Study Program, 2021).

Patients can be categorized as outpatients (polyclinic patients and emergency patients) and inpatients. In terms of service, patients who come can be divided into patients who can wait (outpatients who come by appointment and patients who come not in an emergency condition) and patients who are

immediately helped (emergency patients). Meanwhile, according to the type of arrival, patients can be divided into patients who come to a health care facility for the first time to get health services and old patients who have come before to get health services. Several reasons for the arrival of patients to health care facilities are caused by: a) Sent by a doctor or midwife outside the health care facility; b) Sent by another hospital, Puskesmas, Maternity Hospital, other types of health services; and c) Came of their own accord (Wijaya & Dewi, 2017).

### 2.3. Medical Records Officer

The implementation of good medical records, of course, will support the implementation of efforts to improve services to the community. To produce good and accountable medical records, a competent medical recorder is needed because medical records play an important role in providing patient information. Medical record officers must be able to communicate effectively with patients and other medical personnel. In addition, medical record officers are required to be able to collaborate with doctors, nurses, and other medical personnel to be able to determine disease codes and actions appropriately and accurately (Mathar, 2018). Based on the Decree of the Minister of Health of the Republic of Indonesia (2013), it is stated that a medical recorder is a person who has graduated from medical record education and health information in accordance with the provisions of the legislation.

### 2.4. Medical Record Service Standard

There are four minimum service standards in the medical record, namely the occupancy of medical records 1 x 24 hours from the time the patient returns home by the treating doctor, provision of outpatient medical records within 10 minutes, provision of inpatient medical records within 15 minutes and completeness of medical records. completeness of informed consent.

# 2.5. Factors Affecting the Implementation of Medical Record Management

Several factors that can affect the implementation of medical record management include:

- 1. Length of work. There is a positive relationship between tenure and work productivity, there is also a positive relationship between tenure and job satisfaction (Robbins, 2017).
- 2. Education. The higher the level of formal education, the result in increased expectations in terms of career and employment, and income. But on the other hand, the available job vacancies are not always in accordance with the level and type of knowledge and skills possessed by the job seekers. Work motivation is the will to work that arises because of the encouragement from within the employee as a result of the overall integration of personal needs, the influence of the physical and social environment where its strength depends on the integration process Teamwork. A team is a collection of individuals who each must perform high in synergy. A team that can reasonably be rated ten for each member's quality, is not necessarily a good team if they are not able to synergize (Danim, 2017).
- 3. Completeness of infrastructure. Everyone's performance also depends on organizational support in the form of organizing, providing work facilities and infrastructure, selecting technology, a comfortable working environment, and working conditions and terms. Organizing is intended to provide clarity for everyone about the goals that must be achieved and what must be done to achieve these goals (Gusnetti, 2019).
- 4. Supervision. Supervision is conducting direct and periodic observations by superiors on the work carried out by subordinates so that if a problem is found, direct instructions or assistance are given to overcome it (Wibowo, 2018).

# III. METHODS

The type of research used in this research is quantitative analytical study research, namely research conducted to obtain explanations to be studied. This quantitative analytic study aims to analyze the medical record management of inpatients based on the medical record service standards of Government Hospitals in Medan, namely H. Adam Malik Hospital Medan and Dr. Hospital. Pirngadi Medan. The research design used was cross-sectional, namely, the research variables were examined directly at the time of the study. This research was conducted in two government hospitals in Medan, namely H. Adam Malik Hospital Medan and Pirngadi Regional General Hospital Medan. H. Adam Malik General Hospital Medan is located at Jl. Flower Lau No. 17 Victory Tani Village, Medan Tuntungan District. Meanwhile, RSUP H. Adam Malik Medan is

located at Jln. Prof. H. Muhammad Yamin, SH No. 47 Pioneer Village, Medan Timur District. This research was carried out from December 2021 to May 2022. Data collection was in March 2022. The population of this study was all employees of the medical record department at H. Adam Malik Hospital Medan as many as 77 people and medical record employees at RSUD Dr. Pirngadi Medan as many as 49 people so the total is 126 people. The sample in this study was the entire population as many as 126 people (total sampling).

## 3.1. Method of Collecting Data

# 3.1.1. Validity Test

The validity test was carried out at RSU Royal Prima Medan by as many as 20 people. The test carried out is to determine the correlation between the questions and the total score of the construct or variable. A construct is declared valid if there is a positive and significant correlation. The correlation value must be greater than 0.444 or the Corrected Indicator-Total Correlation value at the SPSS output is greater than 0.444 using the Pearson Product Moment test (Ghozali, 2015). Of the 70 questions asked, all of them got an r-count of more than 0.444 at all questions were declared valid and significant.

# 3.1.2. Reliability Test

This study uses reliability measurements carried out by means of one-shot or measurement once, namely the measurement is only once and the results are compared with other questions or measure the correlation between the answers to questions. The statistical test used was the Cronbach Alpha test. A construct or variable is said to be reliable if the results of the Cronbach Alpha statistical test give a value > 0.600 (Ghozali, 2015). More details can be seen in Table 1.

No.	Variable	Reliability Value		Cronbach's	Information
			vaiue	Alpha Limit	
1.	Work motivation		0,884	0,600	Reliable
2.	Teamwork		0,879	0,600	Reliable
3.	Completeness	of	0,881	0,600	Reliable
4.	infrastructure		0,867	0,600	Reliable
5.	Supervision		0,949	0,600	Reliable
	Implementation				

Table 1. Research Ouestionnaire Reliability Test Results

### 3.2. Data Analysis Method

The data analysis method carried out consists of 3 steps as follows (Notoatmodjo, 2018):

- 1. Univariate analysis to analyze the existing variables descriptively by calculating the frequency distribution and proportions to determine the characteristics of the research subjects.
- 2. Bivariate analysis to determine the relationship between two variables, namely the independent variable (length of work, education, work motivation, teamwork, completeness of infrastructure, supervision) and the dependent variable (implementation of inpatient medical record management based on medical record service standards). The statistical test used was Kai squared (Pearson chi-square), using a 95% confidence level. The calculation formula is:

$$\frac{X^2 = \sum (O-E)^2}{E}$$

Information:

x<sup>2</sup>: *chi-square* 

O: observation frequency

E: hope frequency

Based on the results of statistical calculations, it can be seen the significance of the relationship between the two variables, namely:

- 1) If the probability (p-value) 0.05 means that there is a significant relationship between the independent variable (free) and the dependent variable (bound).
- 2) If the probability (p-value) > 0.05 means that there is no significant relationship between the independent variable (free) and the dependent variable (bound).

3. Multivariate analysis to determine the most dominant factors that influence the implementation of inpatient medical record management based on medical record service standards at the Pirngadi Regional General Hospital Medan. This study uses multiple logistic regression analysis with modeling at the significance level of p < 0.05 and CI (Confidence Interval) and the variable that is the candidate model has a p-value of < 0.25. Furthermore, to find out the significant variables using the 95% confidence interval (=0.05).

### IV. ANALYZE AND RESULT

# 4.1. Description of Research Site

This research was conducted at two government hospitals in Medan City, namely the Central General Hospital H. Adam Malik Medan and the Pirngadi Regional General Hospital Medan with a total sample of 126 people in the medical records section consisting of employees of the medical record section of the Adam Malik General Hospital. as many as 77 people, and employees of the medical records section of the Pirngadi Hospital Medan as many as 49 people. The H. Adam Malik Central General Hospital is a hospital that was established on July 21, 1993. The type of hospital is a Teaching Hospital, Hospital Class: Class A General Hospital. H. Adam Malik Central General Hospital is located at Jln. Flower Lau No. 17 Victory Tani Village, Medan Tuntungan District, Medan City. The history of the Pirngadi Regional General Hospital in Medan began on August 11, 1928, by the Dutch colonial government under the name "Gementa Zieken Huis". During the period of Japanese rule in Indonesia in 1942, the hospital was taken over by the Japanese and the name of the hospital changed to "Syuritsu Byusono Ince" and as director was entrusted to dr. Raden Pirngadi Gonggo Putro. After repeated name changes, in 1979 the Central General Hospital of Medan Province was inaugurated as "Dr. General Hospital. Pirngadi Medan". On December 27, 2001, in line with the implementation of regional autonomy at RSU Dr. Pirngadi Medan's ownership was handed over from the North Sumatra Provincial Government to the Medan City Government.

### 4.2. Research Result

Based on the results of the study, the characteristics of the respondents consisted of the respondent's last education and length of work. More details can be seen in the following table.

**Tables 2.** Frequency Distribution Based on Characteristics of Respondents in Government Hospitals in Medan in 2022

			Hos	spital		Amount		
No.	Characteristics	RSUP Adam Malik		RSUD	Pirngadi	_		
		f	%	F	%	f	<b>%</b>	
1.	Age							
	a. 20-30 years old	28	36,4	8	16,3	36	28,6	
	b. 31-40 years old	38	36,4	28	57,1	56	44,4	
	c. >40 years	21	2,73	13	26,5	34	27,0	
Amou	nt	77	100,0	49	100,0	126	100,0	
2.	Gender							
	a. Man	24	31,2	16	32,7	40	31,7	
	b. Woman	53	68,8	33	67,3	86	68,3	
Amou	nt	77	100,0	49	100,0	126	100,0	

Table 2. above shows that most of the respondents at H. Adam Malik General Hospital Medan are mostly 20-30 years old and 31-40 years old respectively 28 people (36.4%), a small portion >40 years old as many as 21 people (27.3%). Respondents at Pirngadi Hospital Medan aged 31-40 years were 28 people (57.1%), and a small portion aged 20-30 years were 8 people (16.3%). Based on gender, most of the respondents who worked in the medical records section of H. Adam Malik Hospital Medan were mostly women as many as 53 people (68.8%), and the rest were men as many as 24 people (31.2%). Respondents at Pirngadi Hospital Medan were 33 women (67.3%), a small proportion of men as many as 16 people (32.7%).

## 4.3. Univariate Analysis

Based on the results of the study, the univariate analysis of the length of work variable can be seen in the following table.

**Tables 3.** Frequency Distribution of Respondents Based on Long Working Variables

	Length of Work		Hos	spital		An	nount	
No.		RSUP Adam Malik		RSUD Pirngadi		_		
		f	%	F	%	f	<b>%</b>	
1.	<10 years	43	55,8	23	46,9	69	54,8	
2.	>10 years	34	44,2	26	53,1	57	45,2	
Amour	Amount		100,0	49	100,0	126	100,0	

Table 3. shows that based on the length of work, the majority of respondents at H. Adam Malik Hospital Medan worked <10 years as many as 43 people (55.8%), and the rest worked >10 years as many as 34 people (44.2%). Respondents at Pirngadi Hospital Medan mostly worked >10 years as many as 26 people (53.1%), a small proportion of respondents aged <10 years worked as many as 23 people (46.9%).

Based on the results of the study, the univariate analysis of education variables can be seen in the following table.

**Tables 4.** Frequency Distribution of Respondents Based on Educational Variables

,			Но	An	nount		
No.	Education	R	RSUP Adam Malik		RSUD Pirngadi		
		f	%	F	%	f	<b>%</b>
1.	Medical record	49	63,6	29	59,2	77	61,1
2.	department	28	36,4	20	40,8	49	38,9
	Not majoring medical records	in					
Amour	nt	77	100,0	49	100,0	126	100,0

Table 4. above shows that based on education, the majority of respondents at H. Adam Malik Hospital Medan have a medical record education background of 49 people (63.6%), the rest are not medical records education background as many as 28 people (36.4%). Most of the respondents at Pirngadi Hospital Medan also had a medical record education background as many as 29 people (59.2%), and the rest did not have a medical record education background as many as 20 people (40.8%).

Based on the results of the study, the univariate analysis of work motivation variables can be seen in the following table.

**Tables 5.** Frequency Distribution of Respondents Based on Work Motivation Variables

			Hos	An	nount		
No. Work Motivation		RSUP Adam Malik		RSUD Pirngadi		_	
		f	%	F	%	f	%
1.	Tall	60	77,9	39	79,6	99	78,6
2.	Low	17	22,1	10	20,4	27	21,4
Amour	Amount		100.0	49	100,0	126	100.0

Table 5. above shows that based on work motivation, respondents at H. Adam Malik Hospital Medan mostly have high work motivation as many as 60 people (77.9%), and the rest have low work motivation as many as 17 people (22.1%). Likewise, most of the respondents at Pirngadi Hospital Medan have work motivation as many as 39 people (79.6%), the rest have low work motivation as many as 10 people (20.4%).

Based on the results of the study, the univariate analysis of the teamwork variable can be seen in the following table.

**Tables 6.** Frequency Distribution of Respondents Based on Teamwork Variables

			Но	spital		An	nount	
No.	Teamwork		RSUP Adam Malik		Pirngadi	_		
		f	%	F	%	f	%	
1.	Well	63	81,8	32	65,3	95	75,4	
2.	Not enough	14	18,2	17	34,7	31	24,6	
Amour	nt	77	100,0	49	100,0	126	100,0	

Table 6. above shows that based on teamwork, respondents at H. Adam Malik Hospital Medan mostly stated that teamwork was good for as many as 63 people (81.8%), the rest said 14 people were lacking (18.2%). Respondents at Pirngadi Hospital Medan mostly stated that teamwork was good for as many as 32 people (65.3%), the rest had low teamwork 17 people (34.7%).

Based on the results of the study, the univariate analysis of the completeness of infrastructure variables can be seen in the following table.

Tables 7. Frequency Distribution of Respondents Based on the Variable Completeness of Infrastructure

	Completeness of Infrastructure		Hos	An	nount			
No.			RSUP Adam Malik		RSUD Pirngadi			
		f	%	F	%	f	<b>%</b>	
1.	Complete	45	58,4	31	63,3	76	60,3	
2.	Incomplete	32	41,6	18	36,7	50	39,7	
Amou	Amount		100,0	49	100,0	126	100,0	

Table 7. above shows that based on the completeness of infrastructure, respondents at H. Adam Malik Hospital Medan mostly stated that the infrastructure was complete as many as 45 people (58.4%), the rest said 32 people (41.6%). Likewise, respondents at Pirngadi Hospital Medan mostly stated that the infrastructure was complete as many as 31 people (63.3%), the rest said 18 people were incomplete (36.7%).

Based on the results of the study, the univariate analysis of the control variables can be seen in the following table.

Tables 8. Frequency Distribution of Respondents Based on Monitoring Variables

			Ho	spital		An	nount	
No.	Supervision		RSUP Adam Malik		RSUD Pirngadi			
		f	%	F	%	f	<b>%</b>	
1.	Well	58	75,3	32	65,3	90	71,4	
2.	Not enough	19	24,7	17	34,7	36	28,6	
Amou	nt	77	100.0	49	100.0	126	100,0	

Table 8. above shows that based on supervision, the majority of respondents at H. Adam Malik Hospital Medan stated that the supervision was good as many as 58 people (75.3%), the rest said 19 people were lacking (24.7%). Likewise, the majority of respondents at Pirngadi Hospital Medan stated that the supervision was good as many as 32 people (65.3%), the rest had low supervision as many as 17 people (34.7%).

Based on the results of the study, the univariate analysis of the implementation of RM Management for Inpatient Patients Based on RM Service Standards can be seen in the following table.

**Tables 9.** Frequency Distribution of Respondents Based on the Implementation Variables of Inpatient RM Management Based on RM Service Standards

	Implementation of RM		Но	spital		An	nount	
No.	Management for Inpatients Based on RM Service	RSUP Adam Malik		RSUD Pirngadi		_		
	Standards	f	%	F	%	f	<b>%</b>	
1.	Well	53	68,8	29	52,9	82	65,1	
2.	Not enough	24	31,2	20	40,8	44	34,9	
Amour	nt	77	100,0	49	100,0	126	100,0	

Table 9. above shows that based on the Implementation of RM Management for Inpatients Based on RM Service Standards, the majority of respondents at H. Adam Malik Hospital Medan carried out well as many as 53 people (68.8%), the rest were in the poor category as many as 24 people (31,2%). Likewise, the majority of respondents at Pirngadi Hospital Medan carried out well as many as 29 people (52.9%), the rest were in the less category as many as 20 people (40.8%).

# 4.3. Bivariate Analysis

Based on the results of research data processing, it can be seen in the following table.

**Table 10.** The Effect of Length of Work on the Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards

No.	Length of Work	Record 1	Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards					p-value
	WOLK	W	ell	Not	enough			
		f	%	f	%	f	%	•
1.	<10 years	45	65,2	24	34,8	69	100,0	1 000
2.	>10 years	37	64,9	20	35,1	57	100,0	1,000

Based on the results of the study, it was shown that from the bivariate analysis the variable length of work did not affect the implementation of inpatient medical record management based on medical record service standards at Government Hospitals in Medan in 2022, p = 1,000. Respondents with working years <10 years mostly implemented inpatient medical record management based on medical record service standards in the good category (65.2%). Likewise, respondents with working years >10 years, most of the implementation of inpatient medical record management based on medical record service standards are also in the good category (64.9%) (Table 10.).

**Table 11.** The Effect of Education on the Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards

No.	Education	Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards				An	nount	p-value
	_	V	Vell	Not	enough			
	_	f	%	f	%	f	%	
1.	Department of	51	66,2	26	33,8	77	100,0	
	Medical Records							0.040
2.	Not Majoring in	31	63,3	18	36,7	49	100,0	0,848
	Medical Records							

Based on the results of the study, it was shown that from the bivariate analysis, the education variable had no effect on the implementation of inpatient medical record management based on the medical record service standard of the Government Hospital in Medan in 2022, p = 0.848. Respondents with a medical record education background mostly implemented inpatient medical record management based on medical record service standards in the good category (66.2%). Likewise, respondents with non-medical record educational backgrounds, most of the implementation of inpatient medical record management based on medical record service standards are also in the good category (63.3%) (Table 11.).

**Table 12.** The Influence of Work Motivation on the Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards

No.	Work Motivation	Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards					nount	p-value
	Monvation	W	<sup>7</sup> ell	Not	enough			
		f	%	f	%	f	%	
1.	Tall	78	78,8	21	21,2	99	100,0	0.000
2.	Low	4	14,8	23	85,2	27	100,0	0,000

Based on the results of the study, it was shown that from a multivariate analysis, work motivation variables influenced the implementation of inpatient medical record management based on medical record service standards at Government Hospitals in Medan in 2022, p = 0.001. The work motivation variable that has a value of Exp(B)/OR = 12.061 means that medical record employees who have high work motivation have the opportunity to carry out inpatient medical record management based on medical record service standards well, which is 12.0 times higher than medical record employees with low work motivation (Table 12).

**Table 13.** The Effect of Teamwork on the Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards

No.	Teamwork	Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards				An	nount	p-value
		Well		Not enough				
		f	%	f	%	f	%	
1.	Well	75	78,9	20	21,1	95	100,0	0.000
2.	Not enough	7	22,6	24	77,4	31	100,0	0,000

The results showed that from the multivariate analysis the teamwork variable did not affect the implementation of inpatient medical record management based on the medical record service standard of the Government Hospital in Medan in 2022, p = 0.241. This condition indicates that some employees think that the cooperation between the two hospitals still needs to be improved (Table 13).

**Table 14.** The Effect of Completeness of Infrastructure on the Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards

No.	Completeness of	Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards					nount	p-value
	Infrastructure -	Well		Not enough		<u> </u>		
	·	f	%	f	%	f	%	•
1.	Complete	61	80,3	15	19,7	76	100,0	0,760
2.	Incomplete	21	42,0	29	58,0	50	100,0	0,700

The results showed that the multivariate analysis of the infrastructure facilities had no effect on the implementation of inpatient medical record management based on the medical record service standards of the Government Hospital in Medan in 2022, p = 0.760.

**Table 15.** The Effect of Supervision on the Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards

N	Supervision	Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards					nount	p-value
0		Well		Not enough				
		f	%	f	%	f	%	•
1.	Well	78	86,7	12	13,3	90	100,0	0.000
2.	Not enough	4	11,1	32	88,9	36	100,0	0,000

Based on the results of the study, it was shown that from a multivariate analysis, the monitoring variable affected the implementation of inpatient medical record management based on the medical record service standard of the Government Hospital in Medan in 2022, p = 0.000. The supervision variable is the most dominant variable with a value of Exp(B)/OR = 16,662, meaning that medical record employees who state that supervision is good, have the opportunity to carry out inpatient medical record management based on medical record service standards well, which is 16.6 times higher than employees. medical record that states lack of supervision.

# 4.4. Multivariate Analysis

Based on the results of the multiple logistic regression test that has been carried out, it shows that of the 4 variables tested, 2 variables affect the implementation of inpatient medical record management based on medical record service standards, namely work motivation, and supervision. The complete multiple logistic regression test results can be seen in the following table.

**Table 17.** Significant Multiple Logistics Regression Test Results

Variable	В	Sig.	Exp(B)	95%CI forExp(B)
Work motivation	2,490	0,001	12,061	2,899 - 30,179
Supervision	3,602	0,000	16,662	8,183 - 51-991
Constant	-8,375	0,000		

Based on the table above, it shows that the three variables have a significant effect on the implementation of inpatient medical record management based on medical record service standards (p =

0.000). Meanwhile, each variable has significant values as follows: work motivation (p=0.001), and supervision (p=0.000). The most dominant variable or the biggest influence in this study is the supervision variable which has a value of Exp(B)/OR = 16,662, meaning that medical record employees who state that supervision is good, have the opportunity to carry out inpatient medical record management based on standard medical record services with good value. 16.6 times higher than medical record employees who stated that supervision was lacking. Furthermore, the work motivation variable which has a value of Exp(B)/OR = 12.061 means that medical record employees who have high work motivation have the opportunity to carry out inpatient medical record management based on medical record service standards well, which is 12.0 times higher than medical record employees. with low work motivation. Based on the results of the multiple logistic regression test, it was also found that the variables that had no effect on the implementation of inpatient medical record management based on medical record service standards because they had a significant value > 0.05 were the Teamwork variable (p=0.241), and the completeness of infrastructure (p=0.760). More details can be seen in the following table.

Table 18. Multiple Logistics Regression Test Results, Insignificant Variables

No.	Variable	Sig. (p-value)
1.	Teamwork	0,241
2.	Completeness of	0,760
	Infrastructure	

### V. CONCLUSION

Based on the results of the research that has been done and has been presented in the previous chapter, it can be concluded as follows:

- 1. Length of work has no effect on the Implementation of Inpatient Medical Record Management Based on Medical Record Service Standards at Government Hospitals in Medan in 2022, p = 1,000 > 0.05.
- 2. Education has no effect on the implementation of inpatient medical record management based on medical record service standards at Government Hospitals in Medan in 2022, p = 0.848 > 0.05.
- 3. Work motivation affects the implementation of inpatient medical record management based on medical record service standards at the Government Hospital in Medan in 2022, p = 0.001 < 0.05.
- 4. Teamwork does not affect the implementation of inpatient medical record management based on medical record service standards at Government Hospitals in Medan in 2022, p = 0.241 > 0.05.
- 5. The expression of infrastructure does not affect the implementation of inpatient medical record management based on medical record service standards at Government Hospitals in Medan in 2022, p = 0.760 > 0.05.
- 6. Supervision affects the implementation of inpatient medical record management based on medical record service standards at Government Hospitals in Medan in 2022, p = 0.000 < 0.05.
- 7. Supervision variable is the most dominant variable or has the greatest influence on the implementation of inpatient medical record management based on medical record service standards at the Government Hospital in Medan in 2022 with a value of Exp(B)/OR = 19,542. Medical record employees who state that supervision is carried out well by superiors on medical record employees improve the implementation of inpatient medical record management based on medical record service standards well, compared to medical record employees who state that supervision is still lacking.

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