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Optimizing Healthcare Delivery: Analyzing the Relationship Between Inpatient Medical Record Return Time and Service Effectiveness at Ciremai Hospital

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Abstract. The medical record installation must maintain medical records correctly and appropriately, including the return of medical records. According to the Ministry of Health (2006), the standard for returning inpatient medical records is ≤ 2x24 hours after completion of treatment. Meanwhile, the standard of service effectiveness in the form of time for providing outpatient medical records according to Kepmenkes number 129 of 2008 is ≤ 10 minutes. The purpose of the study was to determine the relationship between inpatient medical record return time and service effectiveness. The research method used is quantitative with a cross-sectional design. The population is 220 medical records of post-inpatient patients who are controlled outpatients at Ciremai Hospital during January 2022. The total sample is 145 using the Slovin formula with the purposive sampling technique. Univariate analysis using frequency distribution and bivariate analysis using the Spearman rank correlation test are used because the data is not normally distributed. The results show that the average time to return inpatient medical records is 115,86 hours, the fastest time is 24 hours, and the longest time is 360 hours. The average service effectiveness in the form of outpatient medical record provision was 222,26 minutes; the fastest time was 3 minutes; and the longest time was 710 minutes. The Spearman rank correlation coefficient is 0,418 with a p-value of 0,000 ≤ 0,05. The conclusion is that there is a relationship with moderate correlation strength between inpatient medical record return time and service effectiveness, with a value of 0,418.

Keywords: Medical Records; Hospital; Services; Inpatient; Outpatient

INTRODUCTION

To get quality medical record installation performance, organizing medical records must be done correctly and precisely, including returning medical records. Medical record return is retrieving medical records from service units that borrow back to medical record installations. Delays in returning medical records can be seen from the date of medical records returning to the medical record unit recorded in the inpatient medical record return expedition book (Widjaya, 2014). This can be used as an indicator to see the level of effectiveness of the performance of a work unit. In this study, the scope of service effectiveness effectively provides outpatient medical records from post-hospitalization patients who are in outpatient control to hospitals with the same medical record number.

According to Farhatani & Wulandari (2014), there is a medical record service in outpatient activities, which is one step in outpatient services. Where this service starts from the place of patient registration to obtaining medical records that will be used to get outpatient services, this activity is in the form of providing outpatient medical records for patients who will seek treatment or control back to the hospital.

Ciremai Hospital has 11 treatment rooms with super VIP, VIP, class 1, class 2, class 3, and non-class treatment class types. At the same time, outpatient services consist of 28 polyclinics. Ciremai Hospital has implemented a web-based Hospital Information Management System (SIMRS) since 2016 and started bridging with BPJS in 2019 so that some of the services provided to patients have been recorded in SIMRS, including the time of providing outpatient medical records.

Based on information from incomplete data on filling in medical records (KLPCM), the average delay in returning inpatient medical records at Ciremai Hospital in December 2021 was 13 days. The impact of the delay in returning inpatient medical records will be felt when post-hospitalization outpatient control patients to the polyclinic and need medical records to record the results of their examinations. In contrast, medical record officers must take patient medical records to the inpatient room first so that the time for providing outpatient medical records and services becomes hampered.

LITERATURE

According to the Ministry of Health (2006), the standard for returning inpatient medical records is ≤ 2x24 hours after the patient has finished treatment. These two days are the maximum time limit for returning medical records from the inpatient service unit to the medical record installation. Aufa (2018) stated that the timely return of medical records will facilitate service to patients who come to the polyclinic for re-control after hospitalization. Waiting time for patients is also reduced. This can improve the quality of service in the hospital, satisfaction with patients, and maintain the confidentiality of patient medical records. The sooner medical records are returned to the medical record unit, the faster the implementation of medical record processing activities will affect the quality of performance of a quality medical record unit.

One measure of the performance of medical record services is the time of providing outpatient medical records regulated in the Decree of the Minister of Health Number 129 of 2008 concerning Minimum Service Standards of ≤ 10 Minutes. According to Abdullah (2013), excellent and quality medical record services can be seen from the lack of time for providing

medical records. The faster the provision of medical records, the faster the services are provided to patients.

Quality medical record services will improve the image and satisfaction of patients in hospitals. High patient satisfaction is one indicator of the effectiveness of hospital performance. According to Handayaningrat (2007), effectiveness measures achieving predetermined goals or objectives.

METHOD

This study used quantitative research methods with *a cross-sectional design*. The population of this study is the medical records of post-hospitalization patients under outpatient control at Ciremai Hospital with the same medical record number during January 2022, as many as 220. Samples were obtained with the Slovin formula from as many as 145 medical records. The sampling technique used is purposive sampling with consideration in the form of post-hospitalization patients who control outpatient to Ciremai Hospital using the same medical record number. The research instrument used is an observation guideline. The data collection method uses observation techniques from two different secondary data, KLPCM for inpatient medical record recovery and outpatient response time at SIMRS for service effectiveness. Data analysis through univariate analysis using frequency distribution and bivariate analysis using Spearman rank correlation test because the data is abnormally distributed.

DISCUSSION

The return time for inpatient medical records is obtained based on secondary data, namely KLPCM Ciremai Hospital. While the effectiveness of services in this study is illustrated by providing outpatient medical records, the secondary data is outpatient response time at SIMRS. The following is a table of a frequency distribution of the return time of inpatient medical records and service effectiveness:

Table 1. Frequency Distribution of Inpatient Medical Record Return Time and Service Effectiveness at Ciremai Hospital in January 2022

Variabel	N	Min.	Max.	Mean
Inpatient Medical Record Return Time	145	24	360	115,86
Service Effectiveness	145	3	710	222,26

Source: SIMRS RS Ciremai, 2022

Based on Table 1 above, it is known that from a total sample of 145 medical records, the fastest time in returning inpatient medical records is 24 hours or one day, the longest time is 360 hours or 15 days, and the average return time for inpatient medical records is 115.86 hours or 4.83 days. While in the effectiveness of services in the form of outpatient medical record provision time, the fastest time is 3 minutes, the longest time is 710 minutes, and the average time for providing outpatient medical records is 222.26 minutes.

The normality test determines whether the data from the variables studied are typically distributed. These results will determine the appropriate statistical test to use according to the normality data distribution. It is known based on the results of the normality test of p-value = 0.000, using the value of $\alpha = 0.005$, it is known that the p-value ≤ 0.005 means that the two variable data studied are not normally distributed. Because the data is abnormally distributed, the correlation test used is the Spearman rank test, with the results below:

Table 2. Test the Correlation of Inpatient Medical Record Return Time with Service Effectiveness

Variable		Inpatient Medical Record Return Time	Service Effectiveness
Inpatient Medical Record Return Time	Correlation Coefficient	1,000	,418**
	Sig. (2-tailed)	.	,000
	N	145	145
Service Effectiveness	Correlation Coefficient	,418**	1,000
	Sig. (2-tailed)	,000	.
	N	145	145

**. Correlation is significant at the 0.01 level (2-tailed)

Based on Table 2, it is known that the significance value or Sig. (2-tailed) is 0.000. Because the significance value is less than 0.05 ($0.000 \leq 0.05$), Ha is accepted, which means a relationship exists between the return time of inpatient medical records and the effectiveness of services at Ciremai Hospital. The Spearman rank correlation coefficient value of 0.418 indicates a positive correlation direction. That is, the faster the time to return inpatient medical records, the faster the time for providing outpatient medical records for post-hospitalization patients will be faster so that services to patients will be more effective. Following Sugiyono (2019), the strength of the correlation with a value of 0.418 is in the medium category. This shows that the payback time of inpatient medical records with service effectiveness has a moderate correlation or relationship strength.

The fastest inpatient medical record return time is one day or 24 hours; the longest is 15 days or 360 hours, with an average of 4.83 days or 115.86 hours. Putri &; Sonia's (2021) research showed that the longest inpatient medical record return time reached 16 days. This delay was caused by doctors' indiscipline in filling out forms, causing data processing and report quality to be ineffective. The same thing also happened in Rosalin & Herfiyanti's (2021) research, where the longest inpatient medical record return time was 15 days. This delay was influenced by various factors, including the discipline of related parties in completing medical records and the flow of returning medical records that were not immediately returned to the medical record unit after the patient went home.

The results of observations and interviews conducted confirmed that the cause of the delay in returning medical records was due to patients going home without a doctor's visit first so that the hospitalization resume had not been filled out and disruption when filling out medical records because they had been borrowed back for outpatient control. In varietal, the effectiveness of services in the form of the fastest outpatient medical record provision time is 3 minutes, and the longest is 710 minutes with an average of 222.26 minutes. As the research results by Rahmawati et al. (2020) state, the average time for providing outpatient medical records is around 24.39 minutes. This delay is caused by several factors, including factors in 5M management elements: man, machine, material, money, and methods.

This aligns with Supriadi & Damayanti's (2019) research, where the longest time to provide outpatient medical records is 86 minutes, with an average of 16 minutes. Factors causing this delay are errors in storing medical records, malfunctioning transaction printing machines, and unavailability of tracers. The results of observations and interviews regarding the time of providing outpatient medical records, it is known that although it has been automatically inputted in SIMRS, the time recorded in this system has a long time lag if calculated the difference in the time of providing outpatient medical records starting from the time the first medical record comes out of the filing room to the time when the medical record is received at the polyclinic.

This is because first, some medical records of patients who will be controlled or treated outpatient have been prepared and printed barcodes earlier by medical record officers on duty night shifts. The goal is that when the polyclinic service hours begin, medical records can be available on time at the polyclinic and work is not so piled up because many patients register and many medical records also need to be provided. Second, medical records for patients with polyclinic service hours during the day and evening are usually prepared together with medical records for treatment at the polyclinic hours in the morning. Third, there is a time lag when medical records will be distributed to polyclinics because there are no distribution officers so they wait for medical record officers who have free time to distribute medical records to polyclinics.

While the results of the correlation test between the two variables, as listed in Table 2, show that the direction of the correlation is optimistic with the value of the Spearman rank correlation coefficient of 0.418. Sugiyono (2019) states that 0.418 is in the category (0.400-0.599) with moderate correlation strength. Thus, the results show a relationship between the return time of inpatient medical records and the effectiveness of services in providing outpatient medical records in hospitals, with moderate correlation strength. In this study, the variable time of return of hospitalized medical records could explain the effect on service effectiveness of about 42%; the remaining 58% was explained by other factors not studied in this study.

This finding follows the results of research by Firdaus & Hidayati (2021), which states that a strong relationship exists between the return time of inpatient medical records and the effectiveness of services with a correlation value of 0.710. Several factors that affect the delay in returning inpatient medical records include the responsibility of officers in filling out medical records still needs to be addressed. So this will cause the return time of inpatient medical records to be late and hamper medical record services if patients seek treatment again.

This finding also aligns with Hakam's (2018) findings that the sooner medical records arrive at the polyclinic, the faster patient services are provided. The speed of providing medical records from the medical record department depends on the availability of clear, accurate, reliable, and timely data and information. In addition, the availability of adequate human resources, the information systems used, and the operational standards used also affect the speed of the process of providing medical records. According to Abdullah (2013), sound and quality medical record services can be seen from the lack of time for providing medical records; the faster the provision of medical records, the faster the services are provided to patients.

One of the delays in returning inpatient medical records is caused by policies that have been set that need to be appropriately implemented. In addition to impacting the process of managing further medical records, this impact is also felt by patients who will be in outpatient control or further treatment after hospitalization becomes hampered because they wait for a long time until the discovery of their medical records. The faster the return time for inpatient medical records, the faster the time for providing outpatient medical records for post-inpatient patients will be faster so that patient services will be more effective.

CONCLUSION

The average return time for inpatient medical records at Ciremai Hospital is 4.83 days, with the fastest time being one day and the longest being 15 days. While the average effectiveness of services in the form of time to provide outpatient medical records at Ciremai Hospital is 3.7 hours (222.26 minutes), with the fastest time being 3 minutes and the longest time being 11.8 hours (710 minutes). There is a positive correlation with moderate strength between the return time of inpatient medical records and the effectiveness of services in the form of time of provision of outpatient medical records. The faster the return time for inpatient medical records, the more effective outpatient services will be in providing patient medical records.

In order to minimize delays in returning inpatient medical records, several things can be done as follows: First, it is necessary to hold a time reminder system on SIMRS in the form of an alarm feature that will automatically send the name and medical record number of patients who have not been returned from the relevant inpatient if it is approaching or exceeding the time limit specified in the standard operating procedure (SOP) of

Ciremai Hospital is ≤ 2x24 hours. Notifications can be sent via SMS Gateway, social media groups, or directly from SIMRS specifically intended for inpatient rooms that have not returned medical records. Second, the barcode scanning feature has adequately functioned so that the time for providing outpatient medical records can be calculated automatically through SIMRS, making it easier for officers to report. Third, there needs to be a special officer to distribute medical records to polyclinics.

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BIBLIOGRAPHY

Abdullah, H. 2013. Analisis Kegiatan Pengelolaan Rekam Medis Rawat Inap Pasien Kanker Payudara Program Jamkesmas Untuk Mendukung Pengelolaan Pembiayaan Kesehatan di Rumah Sakit Islam Sultan Agung Semarang Tahun 2011. *Jurnal Kesehatan Masyarakat*.

Aufa, BA. 2018. Analisis Faktor yang Berpengaruh Terhadap Ketidaktepatan Waktu Pengembalian Berkas Rekam Medis Rawat Inap di RS X Bogor. *Jurnal Vokasi Indonesia*. Vol 6(2), p: 41–46.

Departemen Kesehatan. 2006. *Pedoman Penyelenggaraan dan Prosedur Rekam Medis Rumah Sakit di Indonesia*. Jakarta: Depkes RI.

Farhatani, WH & Wulandari, RD. 2014. Faktor Determinan Lamanya Penyediaan Rekam Medis Rawat Jalan RSUD Dr. Moh. Soewandhie Surabaya. *Jurnal Administrasi Kesehatan Indonesia*. Volume 2(4), p: 243 – 254.

Firdaus, MN & Hidayati, M. 2021. Pengaruh Ketepatan Waktu Pengembalian Rekam Medis Rawat Inap Terhadap Efektivitas Pelayanan di RS X. *Jurnal Manajemen Kesehatan Yayasan RS Dr. Seotomo*. Volume 7(2), p: 248–256.

Hakam, F. 2018. Analisis Penyediaan Rekam Medis Pasien Rawat Jalan Berdasarkan Standar Operasional Prosedur (SOP) di Puekesmas X. *Jurnal Manajemen Informasi dan Administrasi Kesehatan (J-MIAK)*. Volume 1(1), p: 11 – 15.

Handayaningrat, S. 2007. *Pengantar Studi Ilmu Administrasi dan Manajemen*. Jakarta: CV Haji Masagung.

Putri, KA & Sonia, D. 2021. Efektivitas Pengembalian Berkas Rekam Medis Rawat Inap Dalam Menunjang Kualitas Laporan di Rumah Sakit Bhayangkara Sartika Asih Bandung. *Jurnal Inovasi Penelitian*. Volume 2(3), p: 909–915.

Rahmawati, MA, Nuraini, N, & Hasan, DA. 2020. Analisis Faktor Penyebab Keterlambatan Penyediaan Dokumen Rekam Medis Rawat Jalan Di RSU Haji Surabaya. *Jurnal Rekam Medik dan Informasi Kesehatan*. Volume 1(4), p: 511 – 518.

Rosalin, AD & Herfiyanti, L. 2021. Ketepatan Pengembalian Rekam Medis Pasien Rawat Inap di Rumah Sakit Mitra Siaga Tegal. *Jurnal Ilmiah Indonesia*. Volume 1(7), p: 775 – 783.

Sugiyono. 2019. *Metode Penelitian Kuantitatif, Kualitatif, R&D*. Bandung: CV Alfabeta.

Supriadi & Damayanti, DP. 2019. Tinjauan Waktu Penyediaan Berkas Rekam Medis Rawat Jalan Rumah Sakit X di Tangerang Selatan. *Jurnal Administrasi Bisnis Terapan*. Volume 2(1), p. 1 – 7.

Widjaya, L. 2014. Sistem Rekam Medis dan Manajemen Informasi Kesehatan tentang Pengarsipan Rekam Medis. Jakarta.