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Research and Evidence on Knowledge in Administration and Management — Medical Electronic Data and Information Systems

Analysis of the Completeness of the Summary of Inpatient Discharge in Support of the Health Insurance Claim Process

Rafika Aini[1]*, & Vitratul Illahi[2]

[1]*STIKes Dharma Landbouw, Indonesia, [2]STIKes Dharma Landbouw, Indonesia

*Co e-mail: rafikaainimkes@gmail.com[1]

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ABSTRACT

Completeness of the inpatient summary of discharge is an important component of medical records in supporting health insurance claims. Incompleteness of this document can cause verification problems, file returns, and delayed claim payments. This study aims to analyze the completeness of the inpatient summary of discharge in supporting the health insurance claim process. The study used a quantitative method with an analytical cross-sectional design and was conducted at the Medical Record Installation of dr. Rasidin Hospital, Padang. The population consisted of all inpatient medical record files of BPJS participants submitted for claims. A sample of 180 files was selected using systematic random sampling. Data were collected through observation using a discharge summary completeness checklist and health insurance claim status review. Univariate analysis used frequency distribution, while bivariate analysis used the Chi-Square test with a 95% confidence level. The results showed that 154 files (85.6%) were complete and 26 files (14.4%) were incomplete. A total of 165 files (91.7%) were processed without problems, while 15 files (8.3%) had pending claims. The Chi-Square test showed a significant relationship between discharge summary completeness and health insurance claims (p=0.001). The Odds Ratio (OR) of 8.25 (95% CI: 2.89–23.57) indicated that incomplete discharge summaries had 8.25 times greater odds of pending claims. Hospitals should strengthen monitoring, periodic medical record audits, and staff compliance to optimize the claims process.

Keywords: *Medical Record, Completeness, Summary of discharge, Patient, Claim, BPJS*

INTRODUCTION

Medical records are an important component in the modern health care system that acts as a source of patient clinical information. The World Health Organization states that good health documentation is the basis for safe and effective medical decision-making. The quality of health care is highly dependent on the completeness and accuracy of recorded patient data. Therefore, medical records are a fundamental element in the health care system (World Health Organization, 2021).

Health Information System is an important part in the implementation of quality health services, especially in supporting the administration and financing process. One of the main elements in the system is a medical record that must be filled in completely, accurately, and on time because it is an indicator of the quality of hospital services from clinical, legal, and administrative aspects. In the context of financing, medical records also play an important role in the process of health insurance claims such as health insurance (Ibrahim, 2024).

Incomplete medical records can have an impact on the delay in the claims process and potentially cause financial losses to the hospital. One important part of the medical record is the summary of discharge which contains information on the patient's condition during treatment and is the basis for verifying claims by health insurance . Incompleteness of the summary of discharge can hinder the claim verification process and cause the return of the file (Yulianti, 2024).

The summary of discharge serves as the final documentation that summarizes the diagnosis, actions, and condition of the patient when discharged from the hospital and becomes a means of communication between health workers to ensure continuity of Service. In addition, this document also has a legal function in the health insurance claim process so that its incompleteness can have an impact on the claims administration process (Firmansyah, 2023).

In the National Health Insurance System, Health insurance implements a claim verification mechanism based on the completeness of medical documents. Hospitals are required to meet administrative standards before claims are processed, and incompleteness of paperwork often causes claims to be delayed or returned by verifiers. This shows the importance of compliance by health workers in filling out medical records (Health insurance , 2023).

Nationally, there are still problems related to the completeness of medical records in various hospitals in Indonesia. Several studies have shown that the percentage of incompleteness in the summary of discharge is still quite high and has an impact on service quality and claim efficiency. Therefore, evaluation of the completeness of documents is an important thing to do (Arifiyanti, 2024). Previous research has shown that the completeness of the summary of discharge is closely related to the speed of the Health insurance claim process. Hospitals with high levels of completeness tend to have faster claims approved, while document incompleteness increases the risk of pending claims. In addition, Human Resource factors such as the workload of health workers and compliance with sops also affect the quality of filling out medical records (Yulianti, 2024).

The problem of incompleteness of documents also has an impact on the increasing number of pending BPJS health claims in various health facilities. This causes the administrative process to be longer and decreases the efficiency of hospital services as a whole (Putri, 2022).

Efforts to improve the completeness of medical records can be done through regular audits, strengthening sops, and training of health workers on the importance of complete and accurate documentation. In addition, continuous monitoring from the management is also needed to improve compliance with the filling of medical records. Utilization of electronic-based information systems can also help improve the completeness of medical documents. Digitization of medical records has been proven to reduce filling errors and increase the efficiency of the documentation process, although its implementation is still not evenly distributed throughout health facilities (Yulianti, 2024).

In addition, health technologies such as electronic medical record (EMR) and other digital systems have been shown to help improve the quality of clinical documentation and accelerate the process of health care. However, implementation challenges are still obstacles in many hospitals. Various studies have also shown that the optimization of the documentation system not only has an impact on the administrative aspect, but also improves the overall quality of patient care. This is because complete data supports better clinical decision-making (Amien, 2023).

Hospital dr. Rasidin Padang as one of the regional referral hospitals also faces challenges in the completeness of medical records. Based on internal reports, there are still claims files that are pending due to incomplete documents, especially in the summary of discharge. This condition has an impact on the delay in the health insurance claim process.

METHODS

This study uses quantitative methods with cross-sectional analytical design to analyze the relationship between the completeness of inpatient summary of discharge with the smooth process of BPJS health claims. The research was conducted at the installation of medical records Hospital dr. Rasidin Padang. The population in this study is the entire medical record file inpatients BPJS health participants submitted claims in the study period. Samples of 180 files were determined using systematic random sampling technique. Inclusion criteria include files of inpatient medical records of BPJS participants who have completed the treatment process and have a summary of discharge, while the exclusion criteria are files that are not complete administratively or not found during data collection. The independent variable in this study is the completeness of the summary of discharge, while the dependent variable is the status of health insurance claims (qualified or pending).

Data collection was conducted through observation and review of medical record documents using an instrument in the form of a checklist sheet for completeness of summary of discharge prepared based on Hospital Medical Record Standards and BPJS health provisions. Claim status Data is obtained from the hospital claims verification section. Data analysis was

conducted univariate using frequency distribution and percentage, and bivariate analysis using Chi-Square test with a confidence level of 95% (α=0.05). This study also took into account ethical aspects by maintaining the confidentiality of patient data, not including the patient's identity on the data collection sheet, and obtaining approval from the hospital management and medical records unit before the study was conducted. All data is used only for scientific purposes without harming any party.

RESULTS

Analysis of data in this study consisted of univariate analysis to see the frequency distribution of research variables, as well as bivariate analysis to determine the relationship between the completeness of the summary of discharge with health insurance *c*laim status using Chi-Square test with a confidence level of 95%.

1. Frequency Distribution Completeness of Summary of Discharge and Health Insurance Claim Status

Table 1. Frequency Distribution Completeness of Summary of Discharge and Health Insurance Claim Status

Variable	Categories	Frequency (n)	Percentage (%)
Summary Of Discharge Completeness	Complete	154	85,6
	Incomplete	26	14,4
Health Insurance Claim Status	Current claims	165	91,7
	Pending / returning	15	8,3

Based on Table 1, it is known that of the 180 files of inpatient medical records, most have a complete summary of discharge of 154 files (85.6%), while 26 files (14.4%) are still incomplete. This result shows that the level of compliance of health workers in filling out the summary of discharge at RSUD dr. Rasidin Padang is already classified as good. However, there are still a small number of files that do not meet the standards of completeness of medical records. Based on the status of Health insurance claims, most of the patient claims went smoothly, namely 165 files (91.7%), while 15 files (8.3%) had pending or refunded claims. This shows that in general the health insurance claim process at the hospital has been running quite optimally. Nevertheless, there are still claims that experience administrative constraints that need attention.

2. Relationship of Completeness of Summary of Discharge with Health Insurance Claim Status

Table 2. Relationship of Completeness of Summary of Discharge with Health Insurance Claim Status

Summary of Discharge Completeness	Current Claims n (%)	Klaim Pending n (%)	Total	OR (95% CI)
Complete	148 (96,1)	6 (3,9)	154	
Incomplete	17 (65,4)	9 (34,6)	26	8,25 (2,89–23,57)
Total	**165 (91,7)**	**15 (8,3)**	**180**	

Based on table 2, it can be seen that most files with a complete summary of discharge have smooth claims, namely 148 files (96.1%), while only 6 files (3.9%) have pending claims. Conversely, in incomplete files, the proportion of pending claims is higher at 9 files (34.6%) compared to current claims of 17 files (65.4%). The results of Chi-Square test showed that there is a significant relationship between the completeness of the summary of discharge and the status of Health insurance claims (p = 0.001). The Odds Ratio (OR) value of 8.25 (95% CI: 2.89–23.57) shows that files with incomplete summary of discharge have about 8.25 times greater chance of experiencing pending claims compared to complete files.

DISCUSSION

1. Frequency Distribution of Completeness of Summary of Discharge and Health Insurance Claim Status

The results showed that of the 180 files of medical records in hospital hospitalization dr. Rasidin Padang, most of the files had a complete summary of the repatriation (85.6%), while 14.4% still found incompleteness. In addition, most of the health insurance claim processes can run without problems (91.7%), although there are still 8.3% of files that are pending or returning claims. These findings indicate that in general, the medical record documentation system and claims administration process in hospitals have been running well, but there are still aspects that need to be improved to achieve optimal documentation quality.

Completeness of medical records is an important component in ensuring continuity of service, patient safety, and the effectiveness of the health financing administration process. The discharge summary has a strategic role because it contains the main information about the diagnosis, medical measures, the patient's condition when discharged from the hospital, and follow-up plans. This information is not only a means of communication between health workers, but also the main document in the process of verifying health financing claims. Therefore,

incompleteness in the summary of the return can lead to administrative obstacles, including the delay or return of the claim.

The high level of completeness of the summary of discharge in this study indicates that most health workers have carried out the documentation process according to applicable service standards. This result is in line with previous research which shows that the implementation of medical record documentation standards can improve the quality of hospital administration, although the level of completeness can still differ between health care facilities due to variations in supervision systems, workload, and Officer Compliance (Arifiyanti, 2024). This shows that the success of documentation depends not only on the existence of standard operating procedures (SOP), but also on the consistency of implementation and compliance culture in daily service practices.

The smooth running of most of the health insurance claims in this study also shows that the Administrative Verification Mechanism in the hospital dr. Rasidin Padang has been running quite effectively. However, still the discovery of pending claims indicates that some documents do not fully meet the administrative requirements. In the health financing system, the completeness of medical documents is an important basis in the claim verification process, so that each component of the medical record has an influence on the success of applying for financing (Ministry of Health, 2022). Thus, although the proportion of claims problems is relatively small, the condition still needs to be a concern because it can affect the efficiency of hospital management.

Several factors can explain the incompleteness of documentation and pending claims. One of them is the high workload of health workers, which can lead to limited time in carrying out complete and timely records (Fauzil, 2022). In addition to individual factors, aspects of hospital management such as the implementation of medical record audits, monitoring systems, and continuous evaluation also play a role in maintaining the quality of documentation. Strengthening the supervision system is needed so that non-conformities can be found early and improvements can be made immediately (Ibrahim, 2024).

The development of Health Information Technology is also one of the strategies that can support improving the quality of medical records. The use of an electronic medical record system can help improve the accuracy, completeness, and ease of the patient data verification process in filing claims. However, the effectiveness of technology implementation still depends on the readiness of human resources, infrastructure, and hospital Organization policies (Biswas, 2024).

In this study, the high percentage of completeness of the summary of discharge and smoothness of claims is suspected to be related to the existence of internal quality control mechanisms, the implementation of documentation procedures, and the file inspection process before filing a claim. However, the discovery of a small number of incomplete documents shows that improved compliance and regular evaluations are still needed. Continuous improvement approaches, such as auditing medical records, feedback to officers, and strengthening documentation systems, are needed to maintain the quality of hospital administrative services.

Overall, this study shows that the quality of documentation of medical records in hospitals dr. Rasidin Padang has been in the good category, but not fully optimal. The completeness of the discharge summary has an important role in supporting the smooth process of health insurance claims and the efficiency of hospital services. Therefore, improving the quality of documentation needs to be done on an ongoing basis through strengthening the management system, improving the compliance of health workers, as well as optimizing health information technology.

2. Relationship of Completeness of Summary of Discharge with Health Insurance Claim Status

Based on the results of the study, it was found that out of 154 files with a complete summary of discharge , as many as 148 files (96.1%) of Health insurance claims went smoothly, while only 6 files (3.9%) had pending claims. Meanwhile, of the 26 incomplete files, as many as 9 files (34.6%) have pending claims and only 17 files (65.4%) have smooth claims. The results of Chi-Square test showed that there is a significant relationship between the completeness of the summary of discharge and the status of Health insurance claims ($p = 0.001$). Value Odds Ratio (OR = 8.25; 95% CI: 2.89–23.57) indicates a higher risk of pending claims on incomplete files.

Completeness of medical record documentation is one of the main factors in the success of the health financing claim process. A complete medical record is the basis for verification in the national health insurance system. Incompleteness of documents can hinder the administrative process and slow down the payment of claims. Therefore, the quality of documentation largely determines the efficiency of the health financing system. (WHO, 2021)

Summary of discharge is an important component in the medical record that serves as a summary of the patient's condition during treatment. This document is the main basis in the Health insurance claim process because it contains information on diagnosis and medical actions. Incompleteness in this section may result in the claim not being properly verified. This has an impact on the occurrence of pending or refund claims. (Ministry of Health, 2022)

The Health insurance system implements a strict verification mechanism based on the completeness of medical documents. Each claim must be supported by a complete and standard medical record. The incompleteness of the summary of discharge is one of the main causes of delayed claims. This shows that the administrative aspect has an important role in the success of the claim. (Health insurance , 2023)

The results of this study are in line with several previous studies that have shown that the completeness of medical records has a significant relationship with the success of claims. Hospitals with a high level of completeness tend to have a lower number of pending claims. On the contrary, the incompleteness of the document increases the risk of rejection of the claim. This strengthens the link between the quality of documentation and the claims process. (Yulianti, 2024)

Other studies have also shown that the completeness of the summary of discharge is an important predictor in the smooth running of Health insurance claims. Complete documents

simplify the verification process by the claims officer. On the contrary, an incomplete document requires additional clarifications that slow down the process. These conditions lead to inefficiencies in the hospital claims system. (Arifiyanti, 2024)

In theory, the completeness of medical records is related to the principles of continuity of care and accountability in health services. Good documentation supports the continuity of patient care and accountability of health workers. The incompleteness of the document reflects the weak application of the principle. Therefore, the completeness of medical records is an important part in the quality of Health Services. (Hanafie, 2024)

The workload factor of health workers can also affect the completeness of the summary of discharge. The high number of patients can lead to time constraints in filling out documents. This often leads to imperfection of the filling of the medical record. This condition has a direct impact on the Health insurance claim process. (Fauzil, 2022)

In addition, the factor of hospital management system also plays an important role in the completeness of documentation. The lack of regular audits of medical records can lead to incompleteness not being detected. A weak surveillance system also worsens the quality of documentation. Therefore, it is necessary to strengthen the internal monitoring system. (Ibrahim, 2024)

The use of electronic information systems can improve the completeness of medical records. Electronic Medical Record (EMR) helps reduce errors and improve data filling consistency. The system also speeds up the claim verification process. However, its implementation is still uneven in all health facilities. (Biswas, 2024)

The condition of high completeness in the complete group indicates that the documentation system in the hospital is running quite well. However, the persistence of pending claims in this group indicates that not only the completeness, but also the quality of the content of the document becomes an important factor. This suggests that the aspects of quantity and quality of documentation should go hand in hand. (Yulianti, 2024)

The assumption of researchers states that the high chance of pending claims on incomplete files is caused by a lack of consistency in filling out the summary of discharge by health workers. In addition, workload and lack of supervision are supporting factors for incompleteness. This shows that the human factor is still the main determinant in the quality of documentation. The completeness of the summary of discharge has a significant effect on the status of Health insurance claims, where incomplete files are more at risk of pending claims. This shows that the quality of medical record documentation largely determines the success of the health financing process in hospitals.

Increasing the compliance of health workers in filling out medical records will have a direct impact on reducing the number of pending claims. Therefore, the completeness of medical records should be the main focus in managing the quality of hospital services. The researcher's assumption also states that although some incomplete files can still be processed smoothly, this is likely due to

the additional clarification process from the claims unit. However, the process still slows down the efficiency of the service. Therefore, completeness from the very beginning becomes a very important factor.

In addition, the researchers also assume that improving the documentation system through strengthening sops, auditing medical records periodically, and training health workers can reduce the risk of file incompleteness. With a stricter monitoring system, the process of filling out medical records will become more consistent and standardized. This is expected to improve the efficiency of the Health insurance claim process on an ongoing basis in hospitals.

CONCLUSIONS

Based on the results of the study it can be concluded that the completeness of the summary of inpatient discharge has a significant relationship with the smooth process of BPJS health claims at Dr hospital. Rasidin Padang. Most of the files studied had a complete summary of discharge of 154 files (85.6%), while 26 files (14.4%) were incomplete. Health insurance claim Status showed that 165 files (91.7%) were processed without problems and 15 files (8.3%) were pending. From the bivariate analysis, it is known that files with a complete summary of discharge have more current claims (96.1%) than incomplete files that have more pending (34.6%). Chi-Square test results showed a significant relationship (p=0.001), and reinforced by the value of the Odds Ratio (OR=8.25; 95% CI: 2.89–23.57) which indicates that incomplete files have a greater risk of experiencing pending claims.

This study has some limitations, among which is the use of cross-sectional design that only describes the relationship at one time so it can not assess the causal relationship with certainty. In addition, the study only used secondary data from medical record files and claims documents so it depends on the completeness of the available records. Other factors such as workload of health workers, hospital management system, and other supporting variables were not analyzed in depth in this study. Therefore, follow-up studies are advised to include other, broader variables as well as use stronger research designs to reinforce the findings.

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REFERENCES

Arifiyanti, N. (2024). *The quality of medical record completeness in Indonesian hospitals and its impact on the quality of care*. Jurnal Manajemen Informasi Kesehatan, 12(1), 45–53.

Biswas, S. (2024). *Impact of electronic medical records on clinical documentation quality and healthcare efficiency*. Journal of Health Informatics, 18(2), 101–110.

Fauzil, A. (2022). *Factors influencing the completeness of medical record documentation by healthcare professionals*. Jurnal Rekam Medis dan Informasi Kesehatan, 10(2), 88–95.

Firmansyah, R. (2023). *The role of the discharge summary in the continuity of care for inpatients.* Jurnal Kesehatan Masyarakat Indonesia, 19(3), 210–218.

Hanafie, S. (2024). *Medical record quality management in enhancing hospital service quality.* Jurnal Administrasi Kesehatan Indonesia, 15(1), 33–41.

Hatta, G., Adisasmito, W., & colleagues. (2018). *The completeness and accuracy of clinical coding for diagnosis and medical procedure on the INA-CBGs claim amounts at a hospital in South Jakarta*. Health Science Journal of Indonesia, 9(1), 14–18.

Health insurance . (2023). *Guidelines for verifying JKN healthcare service claims.* Jakarta: Health insurance

Hidayat, A. R. (2023). *Completeness of filling out the discharge summary sheet for hospitalization at the TK.III Dr. Soetarto (DKT) Hospital.* Jurnal Permata Indonesia, 14(1), 44–53. https://doi.org/10.59737/jpi.v14i1.228

Ibrahim, M. (2024). *Health information systems and the quality of medical record documentation in hospitals.* Jurnal Sistem Informasi Kesehatan, 11(2), 60–69.

Kementerian Kesehatan Republik Indonesia. (2022). *Standards for medical records and healthcare services at healthcare facilities.* Jakarta: Kemenkes RI.

Oktoriani, E. N., Sutrisno, J., Mayasari, E., & Sodik, M. A. (2018). *Analysis of medical record completeness related to BPJS health claim settlement at Baptist Hospital Batu City*. Journal of Global Research in Public Health, 3(1), 46–53.

Putri, N. (2022). *The impact of document completeness on health insurance claim efficiency.* Jurnal Administrasi Rumah Sakit, 8(3), 150–158.

Sholeh, A. (2022). *Analysis of the completeness of discharge summary documentation regarding the processing of Social Security Agency for Health (BPJS Kesehatan) claims at PTPN VIII Subang Hospital.* Jurnal Rekam Medik & Manajemen Informasi Kesehatan, 2(1). https://doi.org/10.47134/rmik.v2i1.30

World Health Organization. (2021). *Medical records and documentation standards in health systems*. Geneva: WHO.

Yulia, R. (2022). *Implementation gap regarding medical record standards in regional hospitals.* Jurnal Kesehatan Indonesia, 17(2), 95–103.

Yulianti, D. (2024). *The relationship between medical record completeness and the JKN claim process at the hospital.* Jurnal Manajemen Pelayanan Kesehatan, 13(1), 25–34.