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Analysis of the Shortness of Hemodialysis Claim Files at Cililin Hospital

Erix gunawan[1], Nurul Huda Fauziah[2]
[1]Politeknik Piksi Ganesha, Bandung, Indonesia, Erixgunawan@gmail.com
[2]Politeknik Piksi Ganesha, Bandung, Indonesia, nurulhudafauziah57@gmail.com

Corresponding Author: nurulhudafauziah57@gmail.com[1]

Abstract: Hemodialysis services are essential therapy for chronic kidney failure patients who require regular service continuity, so that the smooth flow of claims to BPJS Kesehatan is a determining factor in maintaining the quality and continuity of service. However, practice in the field still shows that there are obstacles in the form of incomplete documents, delays in submission, and data inconsistency with the INA-CBGs standard, which has an impact on delayed disbursement of claims and the potential for disruption of hospital financial stability. This study aims to analyze the completeness of the hemodialysis claim file management system at Cililin Hospital, focusing on the level of inter-unit integration, the effectiveness of procedures, and factors that affect claim approval. The research method uses a qualitative approach with a phenomenological design, involving the analysis of 80 claim files for the April 2025 period determined through the Slovin formula, as well as data collection through interviews, observations, and documentation studies. The results showed that the average level of claim completeness reached 86%, with the most complete patient identity component (90%) and the lowest completeness of medical records (81.25%). Of the total claims, 87.5% were approved and 12.5% were rejected, with the finding of a significant correlation between the completeness of the file and the level of claim approval. The conclusion of the study emphasized that the integration of hospital information systems, cross-unit coordination, and improving officer competence are the keys to the effectiveness of claims management. Theoretically, this study strengthens the information integration-based claims management literature, while practically providing improvement recommendations for regional hospitals to ensure the continuity of hemodialysis services and the financial sustainability of hospitals.

Keyword: Medical Records, Hemodialysis Claims, BPJS Kesehatan, Hospital Information Systems, Service Quality

INTRODUCTION

Hemodialysis services are one of the essential health services for patients with chronic kidney failure who need regular and continuous therapy to maintain their life function. In the context of the National Health Insurance (JKN), the sustainability of this service is highly

dependent on the smooth functioning of the health service claim mechanism to BPJS Kesehatan as a financing guarantor. Claims serve as the main instrument that bridges between hospitals as service providers and BPJS as the party that bears the cost of services (Sugiarsi T., 2025). An accurate and timely claim process is the main key so that hemodialysis services can run without obstacles and patients get therapy according to the medical schedule. The accuracy and completeness of claim documents play a crucial role in ensuring continuity of service to patients, especially considering that hemodialysis is an action that must be carried out several times a week. When the claim process runs smoothly, hospitals can maintain financial stability and ensure the provision of adequate equipment, medicines, and health personnel. Therefore, good claims management has a direct influence on the quality of hospital services and the sustainability of health services for kidney failure patients.

However, the reality on the ground shows that the problem of claims, especially in hemodialysis procedures, is still often encountered and becomes a challenge for hospital management. Several previous studies have reported claims that have been delayed or even rejected by BPJS due to incompleteness of the administrative files needed. Problems that often occur include differences in diagnosis codes, inconsistencies in medical record data with the standards set by BPJS, and delays in file collection (Andayani F., 2021). The disintegration of information systems between service units is also one of the causes of administrative errors. This condition has a direct impact on the hospital's cash flow because the payment of claims that should have been received has been delayed. Another impact is the potential for hampered provision of medical services, which can reduce the quality of service and reduce patient satisfaction. If this problem is not addressed immediately, the hospital risks experiencing greater financial constraints in the future.

In the JKN era, health service claims not only function as a payment mechanism but also as a quality and cost-effective control tool. BPJS Kesehatan uses claim data to evaluate service quality while ensuring the right use of the budget. Valid, complete, and compliant claims are an absolute requirement for hospitals to survive in the face of increasingly high operational burdens. Services such as hemodialysis have significant costs because they require specialized equipment, medicines, and skilled and trained human resources (Putri A.; Rahman, M., 2020). Inoptimality in claims management can cause financial losses, which ultimately affect the hospital's ability to provide quality services. In addition, claims that are not managed properly can lead to inaccurate data, thus interfering with the monitoring and evaluation process of health services. This shows that claims are not just administrative, but part of hospital quality management.

Various efforts have been made by hospitals to improve the claims management system to make it more effective and efficient. These efforts include strengthening medical record governance, training for administrative officers, and the application of more advanced health information technology. An integrated claims system is essential because it allows for data synchronization between service units, medical records, and finances. With integration, the risk of administrative errors can be minimized, such as differences in patient data, diagnosis codes, and completeness of documents (Handayani T.; Setiawan, D., 2023). The right technology can speed up the claim verification process and ensure that BPJS Kesehatan standards are met. In addition, training for administrative personnel is also an important factor in improving competence and understanding related to claims procedures. Therefore, the combination of competent human resources and an integrated system is a strategic step in improving the effectiveness of claims management.

Based on these problems, this study focuses on the analysis of the complete management system of hemodialysis claim files that are integrated and effective at Cililin Hospital. This research aims to provide a comprehensive overview of ongoing claims management practices, including the barriers faced and solutions that can be implemented.

The focus of the research on regional hospitals was chosen because the challenges faced are usually different from large hospitals in cities, especially in terms of resources and technology. This study is expected to provide recommendations for improvements that are applicable to improve the sustainability of hemodialysis services at the regional level. A qualitative approach was chosen so that researchers can explore the experiences, obstacles, and strategies taken by various actors involved in the claims system. With this approach, the results of the research are expected to be able to provide a deeper and contextual understanding. In addition, this research can also be a reference for policymakers in developing a more integrated and effective claims management system in the future.

At Cililin Hospital, the hemodialysis unit faces quite complex challenges in managing BPJS claims. The most frequent problems are the existence of claim files that are rejected due to incompleteness of supporting documents, delays in file collection, and incompatibility between medical service data and INA-CBGs standards. This situation not only slows down the process of disbursing claims, but also has a direct impact on hospital cash flow, considering that hemodialysis services are routinely carried out at a fairly high cost (Supriadi, 2022).

This condition shows that integration between related units is very important. The hemodialysis claim process involves various parties ranging from service units, medical records, financial departments, to claims verification teams. Data missynchronization between units can lead to duplication, loss of documents, or verification delays. Therefore, an integrated claims system is needed to ensure that the entire administrative flow runs smoothly, transparently, and in accordance with BPJS standards (Handayani T.; Setiawan, D., 2023).

The urgency of this research is even higher considering the lack of academic studies that discuss the completeness of hemodialysis claim file system in depth in regional hospitals, especially hospitals. Most previous research has focused more on the aspects of tariffs, costs, and service effectiveness(Putri A.; Rahman, M., 2020; Sugiarsi T., 2025), while studies on the integration of claims administration systems are relatively limited. Thus, this research is expected to be able to provide practical recommendations for the management of Cililin Hospital in improving the effectiveness of the claim file management system, so that the sustainability of hemodialysis services can be guaranteed and patient satisfaction is maintained.

Research Objectives

This research aims to:

1. Analyze the hemodialysis claim file management system at Cililin Hospital, including the administrative flow, procedures, and verification mechanisms applied.
2. Identify factors that affect the completeness of claim files, both from internal (HR, coordination between units, information systems) and external aspects (BPJS standards, policy regulations).
3. Assess the level of integration of the existing claims file management system, by examining the interconnectedness between service units, medical records, finances, and claims verification teams.
4. Measuring the effectiveness of the hemodialysis claim file management system, reviewed from the timeliness, accuracy of data, smooth claim payment, and its impact on the sustainability of patient services.
5. Formulate recommendations for improving a more integrated and effective claims system, as an effort to improve claims management at Cililin Hospital and a reference for other regional hospitals.

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METHOD

This study adopts a qualitative approach using a phenomenological design, which was chosen to deeply explore the experiences, understandings, and views of informants regarding the integrated and effective management of hemodialysis claim files. This approach is considered appropriate because it allows researchers to understand phenomena in real context and gain comprehensive insights related to processes, constraints, and supporting factors that affect the claims system from the perspective of field actors (Creswell C., 2023). Phenomenological design is relevant in this study because it focuses on the direct experience of health workers, administrative officers, and hospital management who play a role in the management of hemodialysis claim files (Snyder, 2022). The selected population is the hemodialysis service claim file in April 2025. Data are taken based on the number of patient visits that performed hemodialysis procedures and the latest selected data or samples and can describe the last situation of completeness Hemodialysis claim file aforementioned.

In sampling from population units so that the sample is *representative* of the population, the author uses *the Slovin* formula, as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Information:

n = number of samples required

N = total population

e = error rate (0.01)

Based on the population of 400 hemodialysis service claim files at Hospital X, the following samples can be found:

$$n = \frac{400}{1+(400.0.01)}$$

$$n = \frac{400}{2,2}$$

n = 80 samples

Based on the results of the calculation above, it is known that the sample for the study is as many as 80 samples of hemodialysis service claim files in April 2025.

Number of Samples and Inclusion/Exclusion Criteria

This study analyzed 80 hemodialysis service claim files, collected from the administrative unit at Cililin Hospital during the April 2025 period**.**

Criteria inclusion

The samples used in the selection are as follows:

1. Hemodialysis claim documents recorded in the RME/SIMRS system in the study period (April 2025)
2. Files with minimal supporting documents, such as a request for action form, informed consent, procedure records, laboratory results, and proof of billing.
3. Documents are available in electronic or digital form as scanned, and can be accessed for research purposes.
4. Claim file with process status (submitted, aprroved, paid, or unpaid)

Exclusion Criteria

1. Claim documents other than hemodialysis or outside the study period.
2. Corrupted, lost, duplicate files without a version marker, or inaccessible.
3. Documents that are in legal dispute or are confidential.

The data collection techniques used in the study are:

1. Interview

Interviews were conducted with semi-structured guidelines developed based on claims management theory and previous literature. The interview instrument has gone through a validation process *expert judgment* by two academics who have expertise in hospital management and health information technology. To ensure consistency, interview guidelines were tested on two informants who were not included in the main study. Observations are made on the claim process starting from recording patient data, checking the completeness of documents, to submitting claims electronically to BPJS. In addition, the documentation study was used to review SOPs, hospital policies, and administrative documents related to claims (Nowell J.; White, D.; Mussels, N., 2022)).

2. Observation

Based on the results of direct observation conducted during the study, it was found that the process of managing hemodialysis claims in hospitals still faces various obstacles, especially related to the lack of integration between the units involved. Broadly speaking, the flow of claim submission starts from the stage of recording patient data in the hemodialysis unit, then continues to the medical record section for document completeness checking, and then forwarded to the claims administration unit to be submitted to BPJS Kesehatan through the e-claim system.

During the process, the researchers identified several key problems. First, patient data recording has not been fully connected to the Hospital Management Information System (SIMRS)**,** so at some stages staff still have to input data manually. This condition often leads to duplication of data and hinders the smooth process of submitting claims. Second, coordination and communication between units have not been running optimally, especially between officers in the hemodialysis unit and the administration department. This can be seen when there are incomplete documents, where the submission of information is often late, thus slowing down the settlement of claims. Third, the claim verification stage takes longer than the standards set by BPJS, because documents must go through a layered checking process to ensure their accuracy and conformity with the provisions of the INA-CBG's**.**

3. Documentation study.

It is carried out through an in-depth study of various relevant documents and supports the research process. The documents reviewed include the hospital's Standard Operating Procedures (SOP), official guidelines for BPJS Kesehatan claims, archives of hemodialysis patient claim files, and reports on claims verification results from internal and external parties. Through documentation studies, researchers can obtain secondary data that is factual, structured, and well-documented, so that it can be evidence that strengthens the findings of interviews and observations. Documentation also serves to validate the information obtained from informants, thereby reducing the potential for bias in the data collection process. In addition, the analysis of documents allows researchers to understand claims workflows, administrative requirements, and obstacles that often occur in the claims management process. The data obtained through the documentation will be integrated with the primary data so as to produce a comprehensive and in-depth picture of the hemodialysis claims system. Thus, documentation studies are an important part of qualitative research because they strengthen data triangulation and increase the validity of research findings (Sujarweni, 2021).

RESULT AND DISCUSSION

Based on the analysis process carried out in the field work practice that has been carried out from April 2025 is as follows:

Table 1. Review of the completeness of hemodialysis claim files at Cililin Hospital

Table of Completeness of Hemodialysis Claim Files

Yes	Components Review	RM Incomplete	%	Complete RM	%	Number of Samples
1	Identitas	8	10%	72	90%	80
2	Important Reports	12	15%	68	85%	80
3	Authentication	10	12.5%	70	87.5%	80
4	Overall RM Equipment	15	18.75%	65	81.25%	80
Average	-	11	14%	69	86%	80

Source : Processed by the author 2025

Table 1 shows that the highest level of claim file completeness is found in the identity component, with 72 files (90%) complete. Furthermore, the authentication component also showed a fairly high level of completeness, namely 70 files (87.5%), followed by important reports with 68 files (85%). Meanwhile, the lowest level of completeness was found in the completeness of the overall medical record, namely only 65 files (81.25%) were declared complete. On average, the level of completeness of claim files reached 86%, while 14% of files were still incomplete.

The high completeness of the patient identity component is likely due to the fact that identity data is the main requirement in BPJS claims and most of it has been recorded automatically through an integrated hospital information system. On the other hand, the lack of completeness in the overall completeness of medical records can be caused by delays in document collection, lack of coordination between service units, or weaknesses in monitoring administrative processes.

These results show the need for periodic *supervision (quality control*) and routine training for officers, especially related to the completeness of files that require manual input. Thus, it is hoped that all claim documents can be filled out completely and accurately so that the claim process can run smoothly, minimize the risk of claim rejection by BPJS, and maintain the hospital's financial stability.

Table 2. Review of the distribution of the completeness of the administration of Hemodialysis Claim Files at Cililin Hospital

Table of Completeness of Hemodialysis Claim Files – Requirements Administration

No	Components Review	RM Incomplete	%	Complete RM	%	Number of Samples
1	SEP Sheet	5	6.25%	75	93.75%	80
2	Medical Summary	8	10%	72	90%	80
3	Hospitalization Order	10	12.5%	70	87.5%	80
4	Results of Supporting Examinations	9	11.25%	71	88.75%	80
5	Supporting Reports	11	13.75%	69	86.25%	80
6	Bill	7	8.75%	73	91.25%	80
7	Administrative Requirements	12	15%	68	85%	80
8	Overall	9	11.25%	71	88.75%	80

Source : Processed by the author 2025

In Table.2, it shows that the highest completeness is found in the SEP Sheet, with 75 documents (93.75%) complete out of a total of 80 samples. This shows that the initial administrative process of patients, especially the verification of BPJS membership, has gone well and according to procedures. On the other hand, the lowest completeness was seen in the Administrative Requirements, which were 68 documents (85%) complete, which indicated that there were still obstacles in the collection of supporting documents. Overall, the average completeness reached 88.75%, while 11.25% was still incomplete.

The high completeness of the SEP Sheet is influenced by the system that has been integrated with BPJS, so that data filling is faster and there are fewer errors. Meanwhile, the lack of completeness in the Administrative Requirements may be due to delays in document collection, lack of coordination between units, and weak internal supervision.

These findings emphasize the importance of routine supervision and officer training, not only to ensure complete documents, but also so that the recorded data is accurate and in accordance with BPJS standards so that the claim process can run smoothly.

Table. 3 Review of the distribution of the Frequency of Approval of hemodialysis claims at Cililin Hospital

Claim Approval	Sum	Percentage	Number of Samples
Not approved	10	12,5	80
Approved	70	87,5	80
Total	80	100%	80

Source : Processed by the author 2025

In Table 3 of BPJS claim approval, 70 (87.5%) were approved and 10 (12.5%) were disapproved.

Table.4 Review of the completeness of the Requirements with the Approval of Hemodialysis File Claims at Cililin Hospital

Completeness of Requirements	Not Approved	Approved (n)	Total
Incomplete	6	12	18
Complete	4	58	62
Sum	**10**	**70**	**80**

In Table.4, it is known that there are 6 BPJS hemodialysis claim files that are incomplete and not approved. In addition, there were 58 complete and approved medical record files, 12 incomplete but approved medical record files, and 4 complete but not approved medical record files. These results show a significant relationship between the completeness of the inpatient BPJS file requirements and the approval status of BPJS Kesehatan claims. In other words, the more complete the file submitted, the more likely it is that the claim will be approved, while incompleteness of the file could potentially lead to a claim being rejected.

Discussion

1. Completeness of the Claim File

The results showed that out of 80 samples of hemodialysis claim files, the average level of completeness reached 86%, while 14% of the files were incomplete. The components with the highest completeness were patient identity (90%) and authentication (87.5%), while the lowest was the completeness of medical records (81.25%). This shows that data that has been integrated with hospital information systems (such as patient identities) is more consistent, while manual or supplementary documents (such as medical records) are still prone to shortages. These findings are in line with research (Handayani T.; Setiawan, D., 2023) which emphasizes the importance of SIMRS integration to minimize administrative errors.

2. Administrative Completeness

In the administration of claim files, the highest completeness was found in the SEP sheet (93.75%), while the lowest was in the administrative requirements document (85%). This condition indicates that aspects that are automatically connected to the BPJS system are more guaranteed to be complete. In contrast, supporting documents that still require manual involvement are often constrained by inter-unit coordination and collection delays. This is in accordance with the findings (Andayani F., 2021) that the main problem in JKN claims is the incompleteness of administrative documents that require cross-unit involvement.

3. Claim Approval by BPJS

Out of a total of 80 files, 70 files (87.5%) were approved and 10 files (12.5%) were rejected. Further analysis in Table 4 shows a correlation between the completeness of the documents and the level of claim approval. Of the 62 complete files, 58 were approved (93.5%) and 4 were rejected (6.5%). Meanwhile, of the 18 incomplete files, only 12 (66.7%) were approved and 6 (33.3%) were rejected. This strengthens the evidence that the completeness of the dossier is a major determinant factor for the success of the claim, as affirmed by the (Supriadi, 2022) which found that 70% of claims were rejected due to administrative completeness issues.

4. Contextual Analysis and Comparison with Previous Studies

These findings are consistent with (Putri A.; Rahman, M., 2020) which emphasizes that JKN claims not only function as payment instruments but also as a mechanism for quality control of services. However, the results of this study also show an interesting phenomenon, namely there are 4 files that are complete but still rejected and 12 incomplete files that are approved. This indicates that there are non-administrative factors that also affect the approval of claims, such as differences in interpretation of INA-CBGs standards, BPJS internal verification policies, or technical errors in electronic data input. This difference is important to be further explored in further research.

5. Theoretical and Practical Implications

Theoretically, this study strengthens the claims management model based on health information system integration that emphasizes cross-unit connectivity. In practical terms, the results of the study show the need to:

1. Strengthening SIMRS integration so that all documents, including medical records, can be recorded automatically.
2. Improving coordination between units through SOPs for claims communication.
3. Periodic training for administrative officers to ensure that the understanding of BPJS procedures is always up-to-date.

The main obstacle to this study is that there is still limited data in the April 2025 period and the coverage of only one hospital (Cililin Hospital). Therefore, follow-up research needs to be conducted with a wider scope, longer period, and inter-hospital comparisons to enrich understanding of the effectiveness of the claims system.

CONCLUSION

1. Claim completeness level

Hemodialysis at Cililin Hospital reached 86%, showing that claim management is quite good, but there are still 14% of incomplete files that have the potential to cause delays or rejection of claims.

2. Documents that are integrated with the BPJS and SIMRS systems

It has a higher completeness than manual documents such as medical records. This proves that the use of an integrated information system plays an important role in improving the accuracy and consistency of claim documents.

3. The completeness of the file greatly affects the level of claim approval,

Where complete files are more approved than incomplete files. However, the phenomenon of complete files that are still rejected and incomplete files that are approved indicate the existence of other factors outside the completeness of the administration, such as BPJS's internal policies, interpretation of INA-CBGs standards, and technical errors in data input.

4. The research emphasizes the need for a strategy to improve the claims system through:

a. Improved integration of hospital information systems so that all documents are recorded automatically.
b. Strengthening coordination between units (services, medical records, finance, claims verification).
c. Periodic training for administrative officers to always keep up with the latest BPJS regulations and claim procedures.

5. Theoretically, this study enriches the literature on health claims management based on information system integration. Practically, the results of the study provide concrete recommendations for Cililin Hospital and other regional hospitals to strengthen the governance of JKN claims, so that the sustainability of hemodialysis services can be guaranteed.

6. For further research, it is recommended to expand the scope of the research time and conduct comparisons between hospitals, so as to obtain a more comprehensive picture of the effectiveness and challenges of the health service claims system in Indonesia.

Suggestion

1. **For the Management of Cililin Hospital**
   a. Optimizing the integration of the Hospital Management Information System (SIMRS) with the BPJS system so that all claim documents, including medical records and action records, can be recorded automatically and minimize the risk of incompleteness.
   b. Develop and strengthen SOP for inter-unit coordination (services, medical records, finance, and claims verification) to accelerate the flow of claims and reduce delays.

c. Conduct routine training for claims officers and related personnel regarding BPJS claim procedures and the latest regulations so that administrative errors can be minimized.

2. **For Health and Administration Workers**
   a. Increase accuracy in recording medical records and claim supporting documents so that the data generated is consistent with the INA-CBGs standard.
   b. Develop a work culture based on cross-unit collaboration, so that claims issues can be immediately identified and resolved collectively.

3. **For BPJS Kesehatan**
   a. Provide regular socialization and technical guidance to hospitals regarding policy updates or claims regulations.
   b. Develop a digital feedback system for rejected claims, so that hospitals can immediately make improvements based on clear and measurable reasons.

4. **For the Next Researcher**
   a. It is recommended to expand the scope of research to other hospitals so that the effectiveness of the inter-institutional claims system can be compared.
   b. Increase the research period to be able to describe the dynamics of claims over a longer period of time, so that the factors that affect the success of the claim can be identified more comprehensively.
   c. Combining qualitative and quantitative methods (mixed methods) to enrich research results with statistical data that supports in-depth analysis.

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