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Review of Pending Inpatient Claims to Improve the Effectiveness of BPJS Health Claims at Muhammadiyah Hospital Bandung

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Abstract: Pending inpatient claims under BPJS Kesehatan represent a frequent issue during the hospital claim submission process. Such situations can lead to delayed payments and reduce the overall effectiveness of the BPJS Kesehatan claims process. Pending claims are generally caused by incomplete medical records or supporting medical documentation, administrative errors, and discrepancies between diagnosis and procedure codes. Therefore, evaluating the causes of pending claims is essential to improving the effectiveness of BPJS Kesehatan claims. This study aims to identify the causes of pending inpatient claims and the specific types of errors involved, as well as to examine the measures taken by RS Muhammadiyah Bandung to reduce the incidence of pending claims and enhance claim effectiveness. The findings are expected to provide insight into the causes of pending inpatient claims, common administrative errors, and potential improvement strategies for the hospital.

Keywords: Pending Claims, Effectiveness, Causes of Pending Claims

INTRODUCTION

Hospitals are healthcare institutions that provide comprehensive individual health services, including inpatient, outpatient, and emergency care (Government of the Republic of Indonesia, 2021). In addition to delivering clinical services, hospitals are responsible for ensuring effective administrative and financing processes, particularly when providing healthcare services under Indonesia's National Health Insurance (Jaminan Kesehatan Nasional [JKN]) program. An important component of this system is the submission and verification of healthcare claims to BPJS Kesehatan. Hospitals must therefore understand and comply with claim requirements to ensure timely reimbursement. Failure to fulfill these requirements may result in pending claims, which can delay reimbursement and affect hospital financial and administrative performance (Santiasih, 2021). The implementation of the JKN program requires an effective, efficient, and accurate healthcare claim management system. As advanced referral healthcare facilities, hospitals play an essential role in providing services to JKN participants and submitting claims for reimbursement to BPJS Kesehatan. However, pending BPJS Health claims remain a recurring problem in hospital claim management. A pending claim occurs when a submitted claim cannot proceed to payment because additional verification, clarification, correction, or supporting documentation is

required. Such conditions may prolong the claim settlement process and reduce the effectiveness of hospital claim management (Putri & Novratilova, 2025).

The accuracy and completeness of medical records are essential components of the claim process. Indonesian healthcare facilities are required to implement electronic medical records (Rekam Medis Elektronik [RME]), which contain information regarding patient identity, examinations, treatment, medical procedures, and other healthcare services provided to patients (Ministry of Health of the Republic of Indonesia, 2022). In the context of BPJS Health claims, medical records serve not only as documentation of patient care but also as an important source of evidence supporting diagnosis, treatment, procedures, and healthcare costs submitted for reimbursement. Clinical coding is another critical component influencing claim accuracy. Coding refers to the assignment of standardized codes for diagnoses and medical procedures according to the applicable international disease and procedure classification systems (Ministry of Health of the Republic of Indonesia, 2022). Accurate coding supports standardized clinical information for healthcare services, reporting, statistics, research, financing, and health insurance claims. Inaccurate or inconsistent diagnosis and procedure codes may reduce data validity, create discrepancies between clinical documentation and submitted claims, and ultimately delay BPJS Health claim verification. Therefore, consistency between medical documentation, diagnosis codes, procedure codes, and supporting clinical evidence is essential for successful claim submission.

The effectiveness of claim management can be understood as the extent to which claim processing achieves its intended objectives accurately and within the expected timeframe (Michael Page, 2022). In inpatient services, effective claim management is particularly important because delayed reimbursement may affect hospital cash flow and administrative efficiency. Pending inpatient claims may arise from several factors, including incomplete administrative documentation, inconsistencies in medical supporting documents, readmission-related issues, incomplete medical resumes, and discrepancies between diagnosis and procedure codes. Consequently, the completeness of medical documentation and the accuracy of clinical coding are essential for reducing claim returns and preventing delays in reimbursement. Previous studies have addressed various administrative and coding factors associated with pending BPJS Health claims. Nevertheless, the causes of pending claims may vary across healthcare institutions because of differences in documentation practices, internal verification procedures, coding accuracy, and claim management systems. Evidence specifically describing pending inpatient claims at Muhammadiyah Hospital Bandung remains limited. Therefore, the present study provides a context-specific evaluation by reviewing pending inpatient claims and identifying the factors contributing to claim delays at this hospital. This approach is expected to provide practical evidence for improving the effectiveness of BPJS Health claim management. Accordingly, this study aims to review pending inpatient BPJS Health claims at Muhammadiyah Hospital Bandung, identify the factors contributing to pending claims, and evaluate their implications for the effectiveness of the claim management process. The findings are expected to provide a basis for improving the completeness of medical documentation, the accuracy of clinical coding, internal claim verification, and coordination among healthcare professionals involved in the BPJS Health claim process.

METHODS

This study employed a mixed-methods approach using a sequential explanatory design, in which quantitative data collection and analysis were conducted first, followed by qualitative data collection and analysis to further explain the quantitative findings. The integration of these two approaches was intended to provide a comprehensive understanding of the factors contributing to pending BPJS Health inpatient claims at Muhammadiyah Hospital Bandung, particularly those related to the accuracy of diagnosis and procedure

coding and the overall claim management process. The study was conducted at Muhammadiyah Hospital Bandung using inpatient BPJS Health claim data from the first quarter of 2026 (January–March 2026). The quantitative population consisted of all 1,440 inpatient BPJS Health claim files submitted during this period. Of these, 224 files were identified as pending claims. A total sampling technique was applied to the quantitative component; therefore, all 224 pending inpatient claim files were included in the analysis.

The qualitative population consisted of healthcare personnel involved in the submission and verification of BPJS Health claims at Muhammadiyah Hospital Bandung. Informants were selected using non-probability purposive sampling, in which participants were selected based on their direct involvement, knowledge, and responsibilities in the claim management process (Sugiyono, 2022). The JKN coordinator was selected as the key informant because of their direct role in coordinating the submission, verification, and management of BPJS Health claims. Quantitative data were obtained through a systematic review of the 224 pending inpatient claim files. The review focused on identifying and categorizing the factors associated with pending claims, including the completeness of administrative and medical documentation, accuracy and consistency of diagnosis and procedure coding, availability and appropriateness of supporting medical documentation, readmission-related issues, and other reasons for claim return or pending status identified during the verification process.

Qualitative data were collected through direct observation, interviews, and document review. Observation was conducted by examining the BPJS Health claim management process, including the receipt of medical record documents, assessment of document completeness, diagnosis and procedure coding, internal verification, and submission of claims to BPJS Health. Interviews were conducted directly with the key informant to obtain further explanations regarding the factors contributing to pending claims, challenges encountered during claim management, and measures undertaken to resolve claim-related problems. Document review was performed by examining relevant claim records and supporting documents associated with the claim submission and verification process. In accordance with the sequential explanatory design, quantitative findings were analyzed first to determine the frequency and distribution of pending claims and their contributing factors. The qualitative findings were subsequently used to explain, clarify, and provide contextual understanding of the patterns identified in the quantitative analysis. Finally, the quantitative and qualitative findings were integrated during interpretation to obtain a more comprehensive understanding of pending inpatient claims and their implications for the effectiveness of BPJS Health claim management at Muhammadiyah Hospital Bandung.

RESULTS AND DISCUSSION

Pending Inpatient Claims at Muhammadiyah Hospital Bandung in the First Quarter of 2026

The distribution of inpatient claims submitted by Muhammadiyah Hospital Bandung during the first quarter of 2026 is presented in Table 1.

Table 1. Distribution of Inpatient Claims in the First Quarter of 2026

Month	Approved Inpatient Claims (n)	Pending Inpatient Claims (n)	Total Submitted Claims (n)
January	428	85	513
February	370	50	420
March	418	89	507
Total	1,216	224	1,440

As shown in Table 1, a total of 1,440 inpatient claims were submitted during the first quarter of 2026. Of these, 1,216 claims were approved, while 224 claims were classified as

pending. In January, 513 inpatient claims were submitted, of which 428 were approved and 85 were pending. In February, 370 of 420 submitted claims were approved, while 50 were pending. In March, 418 of 507 submitted claims were approved, while 89 remained pending.

Under the National Health Insurance (*Jaminan Kesehatan Nasional* [JKN]) system, claims submitted by Advanced Referral Health Facilities (*Fasilitas Kesehatan Rujukan Tingkat Lanjutan* [FKRTL]) undergo administrative verification, verification of diagnosis and procedure coding, and assessment of the appropriateness of healthcare services. When incomplete requirements or discrepancies are identified during verification, the claim may require clarification or correction before further processing. Such claims are subsequently classified as pending claims until the identified issues have been resolved (Ministry of Health of the Republic of Indonesia, 2021). The monthly proportion of pending inpatient claims is presented in Table 2.

Table 2. Percentage of Pending Inpatient Claims in the First Quarter of 2026

Month	Submitted Claims (n)	Pending Claims (n)	Pending Claims (%)	Approved Claims (%)
January	513	85	16.57	83.43
February	420	50	11.90	88.10
March	507	89	17.56	82.44
Total	1,440	224	15.56	84.44

Overall, 224 of the 1,440 inpatient claims submitted during the first quarter of 2026 were pending, corresponding to an overall pending claim rate of **15.56%**. The lowest monthly percentage of pending claims occurred in February (11.90%), whereas the highest was observed in March (17.56%). January had a pending claim rate of 16.57%. The pending claim rate decreased from 16.57% in January to 11.90% in February but subsequently increased to 17.56% in March. The increase observed in March was primarily associated with a higher number of claims requiring confirmation of clinical management, involving 21 inpatient claim files. These claims required further clarification or completion before they could proceed through the claim settlement process.

Factors Contributing to Pending Inpatient Claims

The distribution of factors contributing to pending inpatient claims during the first quarter of 2026 is presented in Table 3.

Table 3. Distribution of Factors Contributing to Pending Inpatient Claims

No.	Contributing Factor	January	February	March	Total
1	Diagnosis Confirmation	11	7	10	28
2	Readmission	9	9	9	27
3	Clinical Management Confirmation	1	9	21	31
4	Diagnosis and Procedure Code Confirmation	6	2	9	17
5	Incomplete Administrative Documentation	3	2	4	9
Total		30	29	53	112

As shown in Table 3, 112 pending-claim issues were identified during the first quarter of 2026. Clinical management confirmation was the most frequently identified issue, accounting for 31 cases (27.7%), followed by diagnosis confirmation with 28 cases (25.0%), readmission with 27 cases (24.1%), diagnosis and procedure code confirmation with 17 cases (15.2%), and incomplete administrative documentation with nine cases (8.0%). Clinical management confirmation showed the most notable monthly increase, rising from one case in January to nine cases in February and 21 cases in March.

Qualitative Findings on Factors Contributing to Pending Inpatient Claims

The interview findings provided further explanations for the quantitative patterns identified in the pending claim data. Based on the interview with the Casemix Coordinator, five major issues contributed to pending inpatient claims: diagnosis confirmation, readmission, clinical management confirmation, diagnosis and procedure code confirmation, and incomplete administrative documentation.

Diagnosis Confirmation

Pending claims related to diagnosis confirmation occurred when the diagnosis documented by the physician was insufficiently specific or inconsistent with the results of supporting examinations. Such cases required further clarification with the Physician in Charge of Services (*Dokter Penanggung Jawab Pelayanan* [DPJP]) before the claim could be processed.

“Pending claims usually occur because the diagnosis documented by the physician is not sufficiently specific or does not correspond with the examination results, so the diagnosis code needs to be revised.” (Informant 1)

This finding indicates that effective communication between coders and the DPJP is important for resolving diagnosis-related discrepancies and accelerating the claim verification process.

Readmission

Readmission was also identified as an important contributor to pending claims, accounting for 27 cases during the study period.

“Readmission occurs when a patient is repeatedly hospitalized within a 30-day period with the same diagnosis.” (Informant 1)

The interview finding indicates that repeated hospitalization within a relatively short period requires additional attention during claim verification. Such cases may require further clarification before BPJS Health can complete the claim assessment.

Clinical Management Confirmation

Clinical management confirmation was the most frequently identified factor, with 31 cases during the first quarter of 2026. The number increased substantially in March, when 21 cases were recorded.

“Clinical management confirmation may be required when there is a discrepancy between the procedure and the diagnosis code, insufficient supporting examination evidence, or when further confirmation from the hospital is required.” (Informant 1)

This finding suggests that consistency between clinical management, diagnosis, procedures, and supporting examination results is an important component of successful claim verification. Incomplete or inconsistent clinical evidence may result in additional clarification and consequently delay claim processing.

Diagnosis and Procedure Code Confirmation

Differences in the interpretation of diagnosis and procedure codes between hospital coders and BPJS Health verifiers were also identified as a cause of pending claims.

“The diagnosis and procedure codes may already correspond to the patient's clinical condition, but BPJS may still require changes to the diagnosis or procedure codes.” (Informant 1).

This finding highlights the importance of consistent interpretation and effective communication between hospital coders and BPJS Health verifiers. Differences in coding interpretation may require additional clarification or code revision before claims can be processed.

Incomplete Administrative Documentation

Incomplete administrative documentation accounted for nine pending claim cases, making it the least frequently identified factor among the five categories.

“Incomplete administration occurs because some required documents or supporting medical documents are incomplete.” (Informant 1)

Although less frequent than the other contributing factors, incomplete documentation remains relevant to claim effectiveness because missing administrative or medical supporting documents may prevent claims from proceeding to the subsequent verification stage. Careful document review by medical record personnel, claim officers, and related clinical units is therefore necessary to minimize preventable pending claims.

Overall, the qualitative findings supported and further explained the quantitative results. Clinical management confirmation emerged as the predominant issue, particularly in March, while diagnosis confirmation and readmission also contributed substantially to pending claims. The integration of quantitative and qualitative findings indicates that pending inpatient claims at Muhammadiyah Hospital Bandung were associated primarily with the consistency of clinical documentation and management, diagnostic specificity, readmission verification, coding interpretation, and completeness of administrative and supporting medical documentation.

DISCUSSION

The findings indicate that pending inpatient BPJS Health claims at Muhammadiyah Hospital Bandung were associated with several clinical and administrative factors, including diagnosis confirmation, readmission, clinical management confirmation, diagnosis and procedure code confirmation, and incomplete administrative documentation. Among these factors, clinical management confirmation was the most frequently identified issue, followed by diagnosis confirmation and readmission. These findings demonstrate that the effectiveness of claim management depends not only on administrative completeness but also on the consistency of clinical documentation, coding accuracy, and coordination among healthcare professionals involved in the claim process.

Diagnosis Confirmation

Diagnosis confirmation was identified in 28 pending inpatient claim cases during the first quarter of 2026. This issue occurred when the diagnosis documented by the physician was unclear or insufficiently specific, or when the diagnosis was inconsistent with supporting clinical examination results. Such discrepancies required clarification and, in some cases, revision of the diagnosis code before the claim could proceed. The finding highlights the importance of complete and specific diagnostic documentation in supporting BPJS Health claim verification. The diagnosis documented by the Physician in Charge of Services (*Dokter Penanggung Jawab Pelayanan* [DPJP]) serves as the clinical basis for diagnosis coding and subsequent claim submission. When the diagnosis is insufficiently documented or

unsupported by relevant clinical evidence, coders may experience difficulty assigning an appropriate code, thereby increasing the likelihood of claim confirmation or return. Therefore, direct coordination between coders and the DPJP is essential for resolving diagnosis-related discrepancies. Improving the completeness and specificity of medical documentation before coding and conducting internal verification prior to claim submission may reduce pending claims related to diagnosis confirmation.

Readmission

Readmission was responsible for 27 pending inpatient claim cases during the study period. According to the applicable JKN claim provisions, readmission refers to repeated hospitalization at the same Advanced Referral Health Facility (*Fasilitas Kesehatan Rujukan Tingkat Lanjutan* [FKRTL]) with the same primary diagnosis within 30 days of the previous inpatient episode (Ministry of Health of the Republic of Indonesia, 2021). Readmission cases require careful verification because it must be determined whether the subsequent hospitalization represents a new episode of care or remains clinically related to the previous hospitalization. Inadequate documentation of the patient's previous discharge status, clinical condition, treatment, or reason for rehospitalization may result in additional verification and consequently delay claim processing. Reducing pending claims related to readmission therefore requires comprehensive medical documentation, verification of the patient's previous hospitalization and discharge history, and clear documentation of the clinical reasons for rehospitalization. Coordination between claim officers, coders, medical record personnel, and the responsible physician is also necessary to ensure that the relationship between the previous and subsequent episodes of care can be appropriately demonstrated.

Clinical Management Confirmation

Clinical management confirmation was the most frequently identified factor, accounting for 31 pending inpatient claims. This finding indicates that consistency between the diagnosis, clinical management, medical procedures, and supporting examinations represents a major component of successful BPJS Health claim verification. Pending claims related to clinical management confirmation occurred when the documented procedures were inconsistent with the diagnosis, procedure documentation was incomplete, or supporting examination evidence was insufficient. These discrepancies required further clarification from the hospital before the claims could be processed. The substantial increase in this category in March, when 21 cases were identified, also contributed to the higher overall pending claim rate observed during that month. These findings emphasize the importance of complete and accurate documentation of clinical management. Every procedure and treatment submitted as part of a claim should be supported by appropriate medical record documentation and relevant clinical evidence. Strengthening internal claim verification before submission, particularly by assessing consistency among diagnoses, procedures, and supporting examinations, may help identify discrepancies at an earlier stage and reduce the number of claims requiring subsequent confirmation.

Diagnosis and Procedure Code Confirmation

Diagnosis and procedure code confirmation accounted for 17 pending claims. The qualitative findings indicated that these cases could arise even when hospital coders considered the assigned codes consistent with the patient's clinical condition, because BPJS Health verifiers might request a different diagnosis or procedure code before completing claim verification. This finding indicates the possibility of differences in coding interpretation between hospital coders and BPJS Health verifiers. Because diagnosis and procedure codes influence claim classification and reimbursement, differences in interpretation can delay claim settlement even when the underlying clinical documentation is available. Improved

coordination between hospital coders and BPJS Health verifiers is therefore necessary to minimize differences in coding interpretation. Regular updating of coders' knowledge regarding current coding standards, claim regulations, and BPJS Health verification requirements may also improve coding consistency. In addition, internal coding audits and periodic case discussions may provide opportunities to identify recurrent coding discrepancies and establish more consistent coding practices.

Incomplete Administrative Documentation

Incomplete administrative documentation was identified in nine pending inpatient claim cases, making it the least frequent of the five factors evaluated. Nevertheless, administrative completeness remains an essential prerequisite for effective claim processing. Missing documents or incomplete supporting medical information may prevent verifiers from confirming the eligibility and appropriateness of submitted claims. Unlike some clinical and coding-related issues that require professional interpretation, administrative incompleteness is potentially more preventable through systematic document verification. A standardized claim checklist and internal completeness review before submission could therefore reduce avoidable claim returns. Greater attention from medical record personnel, claim officers, and related clinical units is required to ensure that all mandatory documents and supporting medical evidence are complete and accurate before claims are submitted.

Overall, the findings demonstrate that pending inpatient claims at Muhammadiyah Hospital Bandung are multidimensional and involve interactions between clinical documentation, coding, verification, and administrative processes. Clinical management confirmation emerged as the most prominent issue, while diagnosis confirmation and readmission also contributed substantially to pending claims. These findings suggest that improving claim effectiveness requires an integrated approach involving stronger documentation by the DPJP, accurate and consistent coding, systematic internal verification, effective communication among the Casemix team, coders, medical record personnel, and clinical units, and coordination with BPJS Health verifiers. Strengthening these processes may reduce preventable pending claims, shorten claim resolution time, and improve the overall effectiveness of BPJS Health inpatient claim management.

CONCLUSIONS

Conclusion

This study found that 224 of 1,440 inpatient claims (15.56%) submitted by Muhammadiyah Hospital Bandung during the first quarter of 2026 were classified as pending. The highest monthly pending claim rate occurred in March (17.56%), while the lowest was recorded in February (11.90%). The higher rate in March was primarily associated with an increase in clinical management confirmation, which accounted for 21 cases during that month. The identified factors contributing to pending inpatient claims included clinical management confirmation (31 cases), diagnosis confirmation (28 cases), readmission (27 cases), diagnosis and procedure code confirmation (17 cases), and incomplete administrative documentation (9 cases). Clinical management confirmation was primarily associated with inconsistencies between documented procedures and diagnoses or insufficient supporting clinical evidence. Diagnosis confirmation was related to discrepancies between clinical evidence and documented diagnoses or the need for diagnosis code revision. Readmission cases required additional verification when patients were rehospitalized with the same primary diagnosis within 30 days. Coding-related pending claims were associated with differences in interpretation between hospital coders and BPJS Health verifiers, while administrative issues were mainly related to incomplete claim documents and supporting medical records. These findings indicate that improving the effectiveness of BPJS Health claim management requires stronger clinical and administrative documentation, accurate

diagnosis and procedure coding, systematic internal claim verification, and effective coordination among the Physician in Charge of Services (DPJP), hospital coders, medical record personnel, the Casemix team, and BPJS Health verifiers. Strengthening these processes is expected to reduce preventable pending claims and improve the timeliness and effectiveness of inpatient claim management.

Limitations

This study has several limitations. First, it was conducted at a single healthcare facility, Muhammadiyah Hospital Bandung, and was limited to inpatient BPJS Health claims submitted during the first quarter of 2026. Therefore, the findings may not be generalizable to other hospitals, healthcare settings, or claim periods with different service and claim management characteristics. Second, the quantitative analysis focused on pending claim files and selected contributing factors; therefore, other factors potentially affecting claim effectiveness, such as staff workload, processing time, institutional policies, information system performance, and financial implications, were not comprehensively evaluated. Third, the qualitative component involved a limited number of informants, which may not fully represent the perspectives of all parties involved in the claim process, including coders, physicians, medical record personnel, and BPJS Health verifiers. Finally, the relatively short study period did not allow an assessment of long-term trends or changes in pending claim patterns. These limitations should be considered when interpreting the findings, and further multicenter studies with longer observation periods, broader variables, and more diverse informants are recommended.

Recommendations

Future studies should expand the research setting to multiple hospitals and include larger samples over longer observation periods to provide a more comprehensive understanding of pending BPJS Health claims and improve the generalizability of the findings. Further research should also incorporate additional variables, such as claim processing time, staff workload, coding accuracy, completeness of medical documentation, information system performance, communication among healthcare professionals, and the financial impact of pending claims. A longitudinal approach is recommended to evaluate changes in pending claim patterns over time and assess the effectiveness of corrective interventions. Future studies should also involve a broader range of informants, including coders, Casemix personnel, medical record officers, physicians, and BPJS Health verifiers, to obtain a more comprehensive understanding of claim management barriers. In addition, intervention-based studies evaluating standardized claim checklists, internal coding audits, improved clinical documentation, and integrated pre-claim verification systems are recommended to determine effective strategies for reducing pending claims and improving the efficiency of BPJS Health claim management.

Author Contributions

All authors made substantial contributions to the conception and development of this study. Their contributions included study conceptualization and design, development of the theoretical and methodological framework, data collection, data analysis, interpretation of the findings, manuscript preparation, and critical revision for important intellectual content. All authors reviewed and approved the final version of the manuscript for publication and agreed to be accountable for the accuracy and integrity of the work.

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