

ANALYSIS OF THE INACBG-S INPATIENT CLAIM ADMINISTRATION PROCESS BETWEEN GENERAL HOSPITALS AND SPECIAL HOSPITALS IN 2024

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Abstract

Background: The administrative claim process within the National Health Insurance (JKN) system managed by BPJS Kesehatan continues to experience policy dynamics that directly impact hospital claim submission mechanisms. This study aims to analyze the pending inpatient INA-CBGs claim administration process between General Hospitals (RSU) and Specialized Hospitals (RSK) during the period from July to December 2024. Methods: This study employed a quantitative approach with a cross-sectional design. Data were analyzed using the Chi-Square statistical test to determine differences in the causes of pending claims based on hospital type. Results: The findings revealed that in RSU, the dominant cause of claim pendings was related to coding rules (78%), followed by service standards (45.4%) and administrative completeness (22.8%). In RSK, although the distribution pattern differed, these three factors remained the primary contributors to claim pendings. The Chi-Square test showed no significant difference between RSU and RSK regarding service standards ($p = 0.5$); however, significant differences were found in coding rules and administrative completeness ($p = 0.001$). Conclusion: These findings indicate that hospital type influences specific aspects of the pending claim administration process. Therefore, there is a need to enhance the quality of coders in RSU through training on INA-CBGs coding guidelines, and to improve the quality of administrative personnel in RSK by recruiting staff who meet the standard educational qualifications for hospital administration.

Keywords: Claims administration, INA CBGs, General Hospitals, Specialized Hospitals

Abstrak

Latar Belakang: Proses administrasi klaim dalam sistem Jaminan Kesehatan Nasional (JKN) yang dikelola oleh BPJS Kesehatan terus mengalami dinamika kebijakan yang berdampak langsung terhadap mekanisme pengajuan klaim rumah sakit. Penelitian ini bertujuan untuk menganalisis proses administrasi klaim pendingan INA-CBGs rawat inap antara Rumah Sakit Umum (RSU) dan Rumah Sakit Khusus (RSK) selama periode Juli hingga Desember 2024. Metode: Penelitian ini menggunakan pendekatan kuantitatif dengan desain cross-sectional, serta pengujian data dilakukan menggunakan analisis statistik Chi-Square untuk mengetahui perbedaan penyebab klaim pendingan berdasarkan tipe rumah sakit. Hasil: Hasil penelitian menunjukkan bahwa pada RSU, penyebab dominan klaim pendingan berasal dari kaidah koding (78%), diikuti oleh standar pelayanan (45,4%), dan kelengkapan administrasi (22,8%). Sedangkan pada RSK, meskipun pola distribusi berbeda, ketiga faktor tersebut tetap menjadi penyumbang utama pendingan klaim. Uji Chi-Square menunjukkan tidak terdapat perbedaan signifikan antara RSU dan RSK dalam aspek standar pelayanan ($p = 0,5$), namun ditemukan perbedaan signifikan pada aspek kaidah koding dan kelengkapan administrasi ($p = 0,001$). Simpulan: Berdasarkan temuan tersebut, dapat disimpulkan bahwa perbedaan tipe rumah sakit berpengaruh terhadap aspek-aspek tertentu dalam proses administrasi klaim pendingan. Oleh karena itu, dibutuhkan upaya peningkatan kualitas tenaga koder melalui pelatihan kaidah koding INA-CBGs di RSU, serta peningkatan kualitas SDM administrasi di RSK melalui perekrutan tenaga yang sesuai dengan kualifikasi standar pendidikan administrasi rumah sakit.

Keywords : Administrasi klaim, INA CBGs, Rumah Sakit Umum, Rumah Sakit Khusus

INTRODUCTION

Indonesia's healthcare system has undergone a major transformation through the implementation of the National Health Insurance (JKN) Program, which applies a package-based provider payment mechanism through the Indonesian Case-Based Groups (INA-CBGs). This system, as regulated by the Minister of Health Regulation Number 26 of 2021, aims to enhance efficiency, transparency, and quality of healthcare financing by shifting reimbursement from fee-for-service to diagnosis- and procedure-based payments.¹ Despite these objectives, hospitals continue to face substantial administrative challenges, including incomplete documentation, delayed reporting, and coding inaccuracies, which contribute to a high proportion of pending claims. Data from BPJS Kesehatan in 2022 indicate that approximately 36% of INA-CBGs claims were categorized as pending due to administrative issues, posing risks to hospital cash flow stability and the continuity of healthcare service delivery.²

Indonesian hospitals are formally classified into General Hospitals (RSU) and Specialized Hospitals (RSK) under the Minister of Health Regulation Number 3 of 2020. RSUs provide a wide range of medical services across multiple disease categories, whereas RSKs concentrate on specific clinical specialties such as cardiovascular care, ophthalmology, or maternal and child health.³ These structural and service differences may influence the complexity and effectiveness of claims administration processes within hospitals. Previous studies have identified administrative incompleteness, non-compliance with service standards, and inaccuracies in diagnosis and procedure coding as key contributors to pending INA-CBGs claims.⁴⁻⁵ However, empirical evidence comparing the characteristics and determinants of pending claims between

general and specialized hospitals remains limited.

Preliminary findings from RSU Wisata UIT Makassar and RSIA Ananda indicate notable disparities in the volume of pending claims between RSUs and RSKs, suggesting potential differences in administrative capacity and governance efficiency. Therefore, this study aims to compare the types and underlying causes of pending inpatient INA-CBGs claims between general and specialized hospitals and to analyze the influencing factors. The findings are expected to provide evidence-based insights to strengthen administrative governance, improve claims management efficiency, and support the sustainability of the JKN payment system.

METHODS

This study employed a quantitative comparative analytical design with a cross-sectional approach to examine differences in the types and causes of pending inpatient INA-CBGs claims between general hospitals and specialized hospitals in Indonesia. The study was conducted at RSU Wisata UIT Makassar, representing a general hospital, and RSIA Ananda, representing a specialized hospital. Data were collected within a defined study period to capture the status of pending claims without any intervention.

The study population consisted of all inpatient INA-CBGs claims that were categorized as pending at both hospitals during the study period. A total sampling technique was applied, whereby all pending claims were included as research samples. In cases where the number of claims was excessive, proportional random sampling was considered to ensure balanced representation between the two hospital types.

The independent variable in this study was hospital type, classified as general hospital

or specialized hospital. The dependent variables included the types and causes of pending claims, such as administrative incompleteness, non-compliance with service standards, coding inaccuracies, supporting examination issues, and delays in claim submission. Additional factors potentially influencing pending claims, including document completeness, accuracy of diagnosis and procedure coding, adherence to clinical pathways, timeliness of claim submission, and the competence of claims officers and coders, were also analyzed.

Data were collected through document review of inpatient INA-CBGs claim files, BPJS Kesehatan pending claim reports, and hospital medical records. A structured checklist based on BPJS Kesehatan regulations and the Ministry of Health guidelines was used to classify and verify the causes of pending claims. Descriptive (univariate) analysis was conducted to describe the distribution of pending claim types and causes, while inferential (bivariate) analysis using the Chi-square test or Fisher's exact test was performed to identify differences between general and specialized hospitals. Where appropriate, multivariate logistic regression analysis was applied to determine the most influential factors contributing to pending claims. Ethical approval and institutional permission were obtained prior to data collection, and all patient and hospital data were kept confidential and used solely for research purposes.

RESULTS

1. Analysis of the results of pending INA CBG-rs Inpatient Claims between General Hospitals and Specialized Hospitals for July-December 2024

No	Coding rules	Administrative Completeness	Service Standards
1.00	467 (78%)	21 (22.8%)	229 (45.4%)
2.00	132 (22%)	71 (77.2%)	275 (54.6%)

Table 1 Distribution of Pending INA-CBGs Claims in General Hospitals and Specialized Hospitals from July to December 2024

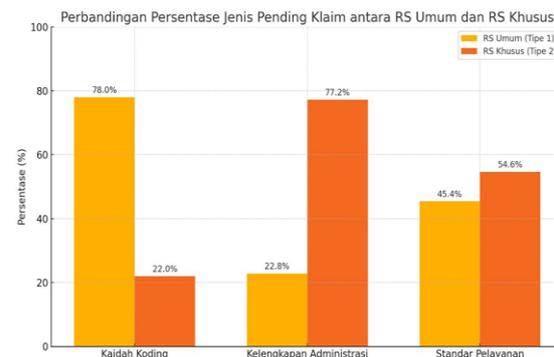


Figure.1 Percentage of Pending Claim Types between RSU and RSK

Analysis Results From the distribution of pending claims, it was found that pending INACBGS claims based on inpatient coding rules were 78% in general hospitals and 22% in specialized hospitals ($p < 0.005$). In the administrative completeness category, it was found that 22.8% of pending claims occurred in general hospitals and 77.2% in specialized hospitals. Meanwhile, in the service standard category, the percentage distribution was 45.4% for general hospitals and 54.6% for specialized hospitals. These three findings indicate variations in the proportion of causes of pending inpatient claims based on certain categories in each type of hospital.

2. The relationship between hospital type and the type of cause of pending claims based on the results of the Chi-Square statistical test.

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	178.048a	2	.001
Likelihood Ratio	183.379	2	.001
N of Valid Cases	1195		

Table 2 Distribution of Types of Pending INA-CBGs Claims in General Hospitals and Specialized

Hospitals in July-December based on the results of the Chi-Square Statistical Test

Based on the results of the Chi-Square test on INA-CBGs inpatient claims data at General Hospitals (RSU) and Special Hospitals (RSK), there are significant differences in the types of pending claims between the two types of hospitals. The total Chi-Square value of $\chi^2 = 178.048$ with a p-value = 0.001 ($p < 0.05$), indicates a significant difference between hospital types and types of pending claims. The most common type of pending claims in RSU is "Coding Rules" with a proportion of 78%, while in RSK, "Administrative Completeness" is dominated by 77.2%. This finding is consistent across all months of analysis (July–December), all of which show a p-value < 0.05 .

DISCUSSION

The findings of this study reveal a statistically significant difference in the dominant causes of pending inpatient INA-CBGs claims between General Hospitals (RSU) and Specialty Hospitals (RSK) during the July–December 2024 period. These results indicate that the occurrence of pending claims is not merely a technical issue at the operational level, but is strongly influenced by institutional characteristics, service complexity, and governance capacity within each hospital type.

In General Hospitals, represented by UIT Tourism Hospital, coding-related issues were identified as the most prominent cause of pending claims, accounting for 78% of all delayed submissions. This finding reflects the high complexity of clinical services provided by RSUs, which manage a broad spectrum of diagnoses and procedures across multiple specialties. Such diversity increases the likelihood of inconsistencies between clinical documentation and INA-CBGs coding requirements. Inadequate understanding of coding rules, frequent regulatory updates,

and limited opportunities for structured training may further exacerbate coding inaccuracies. Previous studies have consistently highlighted coding errors as a critical determinant of claim delays, emphasizing that insufficient coder competency and lack of continuous training significantly increase the risk of pending claims.¹⁻² Errors in coding not only delay reimbursement but also increase administrative workload due to repeated verification and correction processes, ultimately reducing operational efficiency.

In contrast, Specialty Hospitals demonstrated a different pattern, with administrative incompleteness emerging as the dominant cause of pending claims, accounting for 77.2% of cases. This suggests that despite their narrower clinical focus, RSKs face substantial challenges in managing administrative documentation required for claim verification. Issues such as incomplete supporting documents, missing signatures, inconsistencies in patient identity data, and non-compliance with BPJS Kesehatan documentation standards were frequently observed. These findings align with previous research indicating that weak administrative systems and fragmented documentation workflows are major contributors to delayed claims, particularly in hospitals that rely heavily on manual or semi-digital processes.³⁻⁴ Administrative deficiencies not only slow the verification process but also increase the risk of claim rejection, which can negatively affect hospital financial stability. The Chi-Square analysis ($\chi^2 = 178.048$; $p < 0.05$) confirms a statistically significant association between hospital type and the underlying causes of pending claims. This result reinforces the argument that claim management challenges are systemic rather than incidental. The persistence of these patterns over a six-month observation period suggests that institutional routines, organizational culture, and governance structures play a decisive role in shaping claim outcomes. General Hospitals appear

more vulnerable to technical challenges related to coding accuracy, while Specialty Hospitals are more affected by weaknesses in administrative governance. These findings indicate that a standardized, one-size-fits-all strategy for reducing pending claims is unlikely to be effective across different hospital types.

From a managerial and policy perspective, these results highlight the importance of adopting differentiated improvement strategies tailored to hospital characteristics. For RSUs, strengthening technical capacity through continuous coder training, implementation of regular coding audits, and integration of Clinical Documentation Improvement (CDI) programs is essential to reduce coding-related claim delays. For RSKs, priority should be given to improving administrative governance through standardized documentation procedures, staff capacity building in claims administration, and the adoption of integrated electronic claim management systems. Evidence from previous studies shows that hospitals implementing routine internal audits and systematic evaluations of claims administration processes experience a significant reduction in pending claims.⁵

Furthermore, the findings of this study contribute to the broader discourse on the sustainability of the JKN program. High volumes of pending claims can disrupt hospital cash flow, delay payments to suppliers and staff, and ultimately compromise service quality. By identifying distinct institutional vulnerabilities in RSUs and RSKs, this study provides empirical evidence to support targeted, data-driven interventions aimed at strengthening the governance of INA-CBGs claims management. Such interventions are crucial to ensuring the long-term efficiency, financial sustainability, and credibility of the JKN payment system at the national level.

CONCLUSION

This study shows that in General Hospitals (RSU), pending inpatient INA-CBGs claims are mostly caused by coding rules (78%), followed by service standards (45.4%) and administrative completeness (22.8%). Meanwhile, in Specialized Hospitals (RSK), the proportion of pending claims tends to be higher in the administration and service standards aspects, although detailed data needs to be completed. The results of statistical tests showed no significant difference in service standards ($p = 0.5$), but there were significant differences in coding rules and administrative completeness ($p = 0.001$). These findings indicate that hospital type influences the type of administrative obstacles in the claims process.

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