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Analysis of Factors Associated with Pending INA-CBGs Claims in Inpatient Services at Marthen Indey Hospital, Jayapura

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ABSTRACT

Pending claims in inpatient services represent a critical issue in the INA-CBGs-based financing system, as they may disrupt hospital cash flow and reduce service efficiency. This study aimed to examine the determinants of pending inpatient claims at Marthen Indey Hospital, Jayapura, focusing on ICD coding accuracy, completeness of clinical and administrative documentation, appropriateness of medical indications for hospitalization, and the technical accuracy of e-claim data entry. A quantitative study with a cross-sectional design was conducted. Data were analyzed using bivariate and multivariate methods, with robust Poisson regression to identify factors associated with pending claims. Bivariate analysis showed that all variables were significantly associated with pending claims ($p < 0.001$). These findings highlight that coding accuracy and completeness of clinical documentation are key factors in reducing pending claims. Strengthening human resource capacity, improving medical documentation, and enhancing hospital information systems integrated with INA-CBGs are essential to improve claim efficiency and quality.

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INTRODUCTION

The National Health Insurance Program (Jaminan Kesehatan Nasional/JKN) is part of Indonesia's National Social Security System (SJSN), which aims to provide health protection and ensure the fulfillment of basic healthcare needs for all citizens. The program is administered by BPJS Kesehatan through a financing mechanism based on the INA-CBGs system for advanced referral healthcare facilities. INA-CBGs applies a prospective payment system based on diagnostic categories, where hospitals receive reimbursement according to predetermined case groups regulated by the government. Under this system, healthcare costs are covered by BPJS Kesehatan after hospitals submit claims for patient services. However, in practice, many claims remain in pending status due to incomplete or inconsistent claim documents, resulting in delayed reimbursement.

Pending BPJS claims may significantly affect hospital financial stability, including delays in the procurement of medicines, medical equipment, and the overall quality of healthcare services. Previous studies have identified several major causes of pending claims, including incomplete medical resumes, inconsistencies between diagnoses and patient medical histories, inaccurate ICD-10 and ICD-9-CM coding, data entry errors, and incomplete administrative documents. In addition, human resource factors such as staff inaccuracy, differences in interpretation between hospital staff and BPJS verifiers, and weak internal coordination also contribute to claim delays. Studies conducted in several Indonesian hospitals, including RSUD Dr. Pirngadi Medan, RSKIA Sadewa, RSUD Dr. Kanujoso Djatiwibowo, and hospitals in Tebing Tinggi City, demonstrate that medical, coding, and administrative factors strongly influence the success of INA-CBGs claim submissions.

In Papua Province, the implementation of the JKN program faces more complex challenges due to difficult geographical conditions, limited healthcare personnel, and unequal distribution of healthcare facilities. These conditions directly affect healthcare services and the management of INA-CBGs claims in hospitals. One of the major referral hospitals in Papua is RS Marthen Indey Jayapura, which provides inpatient services for JKN participants. Similar to many other hospitals, this institution also experiences recurring pending claims that may disrupt hospital cash flow and healthcare service quality. Therefore, it is important to analyze the factors influencing pending INA-CBGs claims in inpatient services at this hospital.

This study focuses on three major determinants of pending claims: medical factors, coding factors, and administrative factors. Medical factors include the appropriateness of diagnoses and the completeness of medical resumes, coding factors involve the accuracy of ICD-10 and ICD-9-CM coding, while administrative factors include document completeness and the accuracy of SEP and e-claim data entry. The findings of this study are expected to provide empirical evidence regarding the dominant determinants of pending INA-CBGs claims at RS Marthen Indey Jayapura and serve as a basis for improving claim management systems to enhance healthcare service efficiency and hospital financial sustainability.

THEORETICAL REVIEW

National Health Insurance

The National Social Security System (Sistem Jaminan Sosial Nasional/SJSN) is a state-administered social protection system designed to ensure the fulfillment of people's basic living needs through social insurance and mandatory savings mechanisms. The implementation of SJSN in the health sector is realized through the National Health Insurance Program (Jaminan Kesehatan Nasional/JKN), which is mandatory for all Indonesian citizens. The program aims to provide financial protection against health risks through the principles of mutual cooperation, cross-subsidization, portability, and non-profit orientation in order to achieve equitable and sustainable access to healthcare services. The main legal foundations of JKN include Law Number 40 of 2004 concerning SJSN and Law Number 24 of 2011 concerning BPJS, which emphasize the principles of good governance, transparency, and accountability in the administration of the national social security system (Thabrany, 2014; Agustina et al., 2019).

Membership of National Health Insurance

Participants of the JKN program include all individuals who pay contributions independently as well as those whose contributions are covered by the government through the Contribution Assistance Recipient (PBI) scheme. JKN membership is categorized into PBI and non-PBI participants, including salaried workers, non-salaried workers, and non-workers. The system is designed to be inclusive by considering economic status, employment, and family structure so that all citizens can obtain equal access to healthcare services. In addition, the portability principle guarantees that participants continue to receive healthcare benefits throughout Indonesia, including protection for workers who experience employment termination and eligible family members (Mahendradhata et al., 2017; Dewi, 2021).

Financing of National Health Insurance

JKN financing is derived from participant contributions, central and local government contributions, and the development of social security funds. Contribution amounts are determined based on participant categories, where PBI participants receive full government subsidies, while non-PBI participants pay contributions according to their selected service class. This financing scheme applies a cost-sharing principle between central and regional governments to maintain the sustainability of the JKN program and ensure affordable healthcare services for the community. The financing system also emphasizes the importance of active membership status, as healthcare service rights are directly linked to participants' compliance in paying contributions (Agustina et al., 2019; Ministry of Finance of the Republic of Indonesia, 2024).

Social Security Administering Body for Health

BPJS Kesehatan is a public legal entity established to administer the JKN program based on social insurance and national social security principles. BPJS

Kesehatan is responsible for managing membership, collecting and administering contributions, paying claims to healthcare facilities, and supervising healthcare service quality. In practice, BPJS Kesehatan collaborates with healthcare facilities through capitation payment systems for primary healthcare facilities and INA-CBGs payment systems for advanced referral healthcare facilities. The legal basis for BPJS Kesehatan originates from the constitutional mandate of the 1945 Constitution, the SJSN Law, and various implementing regulations that affirm healthcare as a constitutional right of every citizen (Mahendradhata et al., 2017; Wiasa, 2022).

Definition and Principles of INA-CBGs

INA-CBGs is a healthcare payment classification system based on diagnoses and procedures that groups patient cases according to similar clinical characteristics and resource utilization. The system applies principles of efficiency, transparency, and fairness through nationally standardized tariffs based on case complexity. Each healthcare episode is grouped into a specific CBG code with a fixed tariff, encouraging hospitals to improve service efficiency without reducing service quality (Leonard et al., 2021).

METHODOLOGY

This study is a quantitative analytic research using a cross-sectional design conducted at RS Marthen Indey Jayapura to analyze factors associated with pending inpatient INA-CBGs claims based on official claim verification documents from BPJS Kesehatan. The population consisted of 872 inpatient claims submitted during January–December 2025, and total sampling was applied, resulting in 800 eligible claims after inclusion and exclusion criteria were implemented. Independent variables included the accuracy of ICD-10 and ICD-9-CM coding, completeness of clinical and administrative documentation, appropriateness of inpatient medical indications, and accuracy of e-claim data entry, while the dependent variable was claim status (pending or non-pending). Secondary data were collected through document review and checklist-based audits, processed using editing, coding, and tabulation techniques, and analyzed with SPSS version 27.0 using univariate analysis for frequency distribution, bivariate analysis with Chi-Square or Fisher's Exact tests and Prevalence Ratio (PR), as well as multivariate analysis using robust Poisson regression to identify the most dominant factors influencing pending claims, while maintaining research ethics through institutional approval, confidentiality protection, and ethical clearance.

RESULTS

Univariate Analysis

Univariate analysis showed that most inpatient claims had good document quality and claim processing. The majority of claims demonstrated accurate ICD coding (73.6%), complete clinical documentation (73.4%), complete administrative documentation (73.8%), appropriate inpatient medical indications (74.1%), and accurate e-claim data entry (74.8%). However, approximately one-quarter of the claims still experienced problems related to coding accuracy,

document completeness, medical indication appropriateness, and e-claim data entry accuracy.

Table 1. Variable Frequency Distribution of Research at Marthen Indey Hospital Jayapura

Variable	**Categories**	**Frequency (n)**	**Percentage (%)**
ICD X and ICD IX (X1) Coding Accuracy	Inaccurate	211	26,4
	Accurate	589	73,6
Clinical Document Completeness (X2)	Incomplete	213	26,6
	Complete	587	73,4
Completeness of Administrative Documents (X3)	Incomplete	210	26,3
	Complete	590	73,8
Inpatient Medical Indication Eligibility (X4)	Not eligible	207	25,9
	Worthy	593	74,1
Technical Accuracy of E-Claim Data Input (x5)	Inaccurate	202	25,3
	Accurate	598	74,8
Pending Hospitalization Claims (Y)	Pending	270	33,8
	Not pending	530	66,3
Total		800	**100,0**

Source: Primary Data, 2026.

Overall, pending inpatient claims were found in 33.8% of cases, while 66.3% of claims were non-pending. Based on regulations issued by the Ministry of Health of the Republic of Indonesia and BPJS Kesehatan, patients admitted through the emergency department must meet at least one emergency criterion, such as respiratory or hemodynamic disorders, decreased consciousness, life-threatening conditions, or the need for immediate treatment. During the study period at RS Marthen Indey Jayapura, the most common inpatient diseases were Tertian Malaria (B51.9) with 140 cases and Tropical Malaria (B50.9) with 82 cases, both having an average length of stay of approximately 3 days, followed by Bacterial Infection (A49.9) with 55 cases and an average hospital stay of 3–4 days. These findings indicate that infectious diseases, particularly malaria, remain the dominant causes of inpatient admissions in the Jayapura region.

Table 2. Distribution of Top 20 Inpatient Diseases along with Length of Stay at Marthen Indey Jayapura Hospital for the Period of January 2026 based on ICD Code X.

NO	Disease Name	ICD X Code	Average Length of Stay (Days)	Quantity
1	Malaria Tersiana	B51.9	3	140
2	Tropical Malaria	B50.9	3	82
3	Bacterial Infections	A49.9	3-4	55
4	Bronchopneumonia	J18.0	5-6	33
5	Gangrene	R02	4-5	28
6	Spontaneous Partation	O80.9	1-2	22
7	Fetal Crate	O68.9	3	19
8	Fracture	Z47.0	3-4	17
9	Acute Gastroenteritis	A09.0	3	15
10	DM Type 2	E11.9	4	14
11	Fault Operation	O34.2	3	13
12	Vertigo	H81.3	3	11
13	Dyspepsia	K30	3	11
14	*Nausea and Vomitting*	R11	3	9
15	Urinary Tract Infections	N39.9	3-4	9
16	Breast Tumor	D24	3-4	8
17	Internal Hemorrhoids	I84.2	3-4	8
18	Hypertophy of the Tonsils and Adenoids	J35.3	3	8
19	Hydronephrosis	N13.2	4	8
20	Ovarian cysts	N83.2	3	8
	Other Diagnoses			354
	Total			**872**

Source: Primary Data, 2026.

Respiratory diseases such as Bronchopneumonia (J18.0) accounted for 33 cases with an average hospital stay of 5–6 days, indicating that respiratory infections remain a significant health problem at RS Marthen Indey Jayapura. Gangrene (R02) cases totaled 28 patients with an average length of stay of 4–5 days, reflecting the burden of chronic conditions requiring intensive treatment. In the obstetric group, Spontaneous Delivery (O80.9), Cesarean Section (O34.2), and Fetal Distress (O68.9) highlighted the importance of maternal and neonatal services in the hospital. Non-communicable diseases such as Type 2 Diabetes Mellitus, Breast Tumor, and Internal Hemorrhoids were also included among the top 20 inpatient diseases, with an average hospital stay of 3–4 days. Overall, the inpatient disease pattern was dominated by infectious diseases, particularly malaria and bacterial infections, with average lengths of stay ranging from 1 to 6 days, emphasizing the need for comprehensive healthcare services covering infectious diseases, non-communicable diseases, obstetric care, and emergency services.

Table 3. Distribution of the Number of Patients based on the Characteristics of the Inpatient Class at Marthen Indey Jayapura Hospital.

NO	Treatment Classes	Quantity
1	VVIP Class	0
2	VIP Class	0
3	Class I	271
4	Class II	231

Most of the inpatients at Marthen Indey Jayapura Hospital are in class III as many as 370 patients (42.4%), followed by class I as many as 271 patients (31.1%) and class II as many as 231 patients (26.5%). There were no patients in either the VVIP or VIP classes during the study period. These findings show that inpatient services are more widely used in the standard and middle classes that are more affordable, thus confirming the role of hospitals in providing economical health services to the wider community.

Bivariate Analysis

Analysis of the relationship between ICD-10 and ICD-9-CM coding accuracy and pending hospitalization claims at Marthen Indey Jayapura Hospital showed the distribution of claim status based on the level of coding accuracy. The difference in the proportion of pending claims between groups with accurate and inaccurate coding was used to assess the relationship between the accuracy of diagnosis coding and action on the occurrence of pending claims.

Table 4. Distribution of Respondents Based on ICD X and ICD IX (X1) Coding Accuracy with Pending Hospitalization Claims (Y) at Marthen Indey Hospital Jayapura

ICD X and ICD IX (X1) Coding Accuracy	Pending Hospitalization Claims (Y)		Total
	Pending	Not Pending	
Inaccurate	205 (97,2%)	6 (2,8%)	211 (100,0%)
Accurate	65 (11,0%)	524 (89,0%)	589 (100,0%)
Total	270 (33,8%0	530 (66,3%)	800 (100,0%)
p-value (*Chi-Square*) = 0.000 < 0.001; RP=8,804; 95%CI (6,992-11,068)			

Source: Primary Data, 2026.

Based on the results of the analysis, most of the claims with inaccurate ICD-10 and ICD-9-CM codes were pending, namely 205 out of 211 claims (97.2%), while only 11.0% of claims with accurate coding were pending. The results of the Chi-Square test showed a significant relationship between ICD coding accuracy and inpatient pending claims ($p<0.001$) with an RP value of 8.804 (95% CI: 6.992–11.068), which means that inaccurate coding claims have almost 9 times greater risk of pending than claims with accurate coding. Furthermore, an analysis of the relationship between the completeness of clinical documentation and the claim of pending hospitalization was carried out to see the difference in the proportion

of pending between groups with complete and incomplete clinical documents at Marthen Indey Jayapura Hospital.

Table 5. Distribution of Respondents Based on Completeness of Clinical Documentation (X2) with Pending Hospitalization Claims (Y) at Marthen Indey Hospital Jayapura

Completeness of Clinical Documentation (X2)	Pending Hospitalization Claims (Y)		Total
	Pending	Not Pending	
Incomplete	211 (99,1%)	2 (0,9%)	213 (100,0%)
Complete	59 (10,1%)	528 (89,9%)	587 (100,0%)
Total	270 (33,8%0	530 (66,3%)	800 (100,0%)
p-value (*Chi-Square*) = 0.000 < 0.001; RP=9,856; 95%CI (7,735-12,559)			

Source: Primary Data, 2026.

Based on Table , among 213 claims with incomplete clinical documentation, 211 claims (99.1%) were pending, while only 2 claims (0.9%) were not pending. In contrast, among 587 claims with complete clinical documentation, 59 claims (10.1%) were pending and 528 claims (89.9%) were not pending. The Chi-Square test showed a significant relationship between clinical document completeness and inpatient pending claims ($p < 0.001$). The prevalence ratio (PR = 9.856; 95% CI: 7.735–12.559) indicates that claims with incomplete clinical documentation had nearly 10 times higher risk of becoming pending compared to claims with complete documentation. Furthermore, the analysis of administrative document completeness also demonstrated differences in the proportion of pending claims between complete and incomplete administrative documents.

Table 6. Distribution of Respondents Based on Completeness of Administrative Documentation (X3) with Claims of Pending Inpatient Admission (Y) at Marthen Indey Jayapura Hospital.

Completeness of Administrative Documentation (X3)	Pending Hospitalization Claims (Y)		Total
	Pending	Not Pending	
Incomplete	207 (98,6%)	3 (1,4%)	210 (100,0%)
Complete	63 (10,7%)	527 (89,3%)	590 (100,0%)
Total	270 (33,8%0	530 (66,3%)	800 (100,0%)
p-value (*Chi-Square*) = 0.000 < 0.001; RP=9,231; 95%CI (7,306-11,664)			

Source: Primary Data, 2026.

Based on Table, among 210 claims with incomplete administrative documentation, 207 claims (98.6%) were pending, while only 3 claims (1.4%) were not pending. In contrast, among 590 claims with complete administrative documentation, 63 claims (10.7%) were pending and 527 claims (89.3%) were not pending. The Chi-Square test showed a significant relationship between administrative document completeness and inpatient pending claims ($p < 0.001$). The prevalence ratio (PR = 9.231; 95% CI: 7.306–11.664) indicates that claims with incomplete administrative documents had approximately 9 times higher risk of

becoming pending compared to claims with complete administrative documents. Furthermore, the analysis of inpatient medical indication eligibility also demonstrated differences in the proportion of pending claims between medically eligible and ineligible inpatient cases.

Table 7. Distribution of Respondents Based on the Feasibility of Inpatient Medical Indications (X4) with Claims of Pending Inpatient (Y) at Marthen Indey Hospital Jayapura.

Inpatient Medical Indication Eligibility (X4)	Pending Claims (Y)	Hospitalization	Total
	Pending	Not Pending	
Not Eligible	203 (98,1%)	4 (1,9%)	207 (100,0%)
Worthy	67 (11,3%)	526 (88,7%)	593 (100,0%)
Total	270 (33,8%0	530 (66,3%)	800 (100,0%)
p-value (*Chi-Square*) = 0.000 < 0.001; RP=8,680; 95%CI (6,922-10,884)			

Source: Primary Data, 2026.

Based on Table, among 207 claims with inappropriate inpatient medical indications, 203 claims (98.1%) were pending, while only 4 claims (1.9%) were not pending. In contrast, among 593 claims with appropriate inpatient medical indications, 67 claims (11.3%) were pending and 530 claims (88.7%) were not pending. The Chi-Square test showed a significant relationship between the appropriateness of inpatient medical indications and pending inpatient claims ($p < 0.001$). The prevalence ratio (PR = 8.680; 95% CI: 6.922–10.884) indicates that claims with inappropriate inpatient medical indications had nearly 9 times higher risk of becoming pending compared to claims with appropriate medical indications. Furthermore, the analysis of the technical accuracy of e-claim data entry also demonstrated differences in the proportion of pending claims between accurate and inaccurate e-claim data input.

Table 8. Distribution of Respondents Based on Technical Accuracy of E-Claim Data Input (X5) with Pending Inpatient Claims (Y) at Marthen Indey Jayapura Hospital.

Technical Accuracy of E-Claim Data Input (x5)	Pending Claims (Y)	Hospitalization	Total
	Pending	Not Pending	
Inaccurate	200 (99,0%)	2 (1,0%)	202 (100,0%)
Accurate	70 (11,7%)	528 (88,3%)	598 (100,0%)
Total	270 (33,8%0	530 (66,3%)	800 (100,0%)
p-value (*Chi-Square*) = 0.000 < 0.001; RP=8,458; 95%CI (6,784-10,546)			

Source: Primary Data, 2026.

Based on Table, among 202 claims with inaccurate e-claim data entry techniques, 200 claims (99.0%) were pending, while only 2 claims (1.0%) were not pending. In contrast, among 598 claims with accurate e-claim data entry, 70 claims (11.7%) were pending and 528 claims (88.3%) were not pending. The Chi-

Square test showed a significant relationship between the technical accuracy of e-claim data entry and pending inpatient claims (p < 0.001). The prevalence ratio (PR = 8.458; 95% CI: 6.784–10.546) indicates that claims with inaccurate e-claim data entry had more than 8 times higher risk of becoming pending compared to claims with accurate data entry. These findings suggest that the technical accuracy of e-claim data entry is a major risk factor for pending inpatient claims.

Multivariate Analysis

Table 9. Results of Multivariate Analysis of Robust Poisson Regression on Pending Hospitalization Claims at Marthen Indey Hospital Jayapura.

Independent Variables	B	p-value	RP (Exp(B))	95% CI Exp(B)
ICD Coding Accuracy (X1)	0,839	0,000	2,31	1,67 – 3,21
Completeness of Clinical Documentation (X2)	0,936	0,000	2,55	1,63 – 3,99
Completeness of Administrative Documentation (X3)	0,446	0,050	1,56	1,00 – 2,44
Inpatient Medical Indication Eligibility (X4)	0,463	0,016	1,59	1,09 – 2,32
Technical Accuracy of E-Claim Input (X5)	0,163	0,357	1,18	0,83 – 1,67

Source: Primary Data, 2026.

Based on Table, claims with inaccurate ICD coding (PR = 2.31; p < 0.001) and incomplete clinical documentation (PR = 2.55; p < 0.001) had more than twice the risk of becoming pending compared to claims with proper conditions. Incomplete administrative documentation (PR = 1.56; p = 0.050) and inappropriate inpatient medical indications (PR = 1.59; p = 0.016) were also significantly associated with an increased risk of pending claims. Meanwhile, the technical accuracy of e-claim data entry did not show a significant relationship (PR = 1.18; p = 0.357). Therefore, the most dominant factor associated with pending claims was the completeness of clinical documentation.

DISCUSSION

The Relationship of ICD X and ICD IX Coding Accuracy to Pending Claims

The results showed that the accuracy of ICD-10 and ICD-9-CM coding was significantly related to inpatient pending claims, where claims with inaccurate coding had a much higher risk of pending than accurate coding. This finding confirms that coding is a dominant factor because it plays a direct role in the INA-CBGs grouping process and BPJS Kesehatan verification. Discrepancies in medical diagnosis, actions, and documentation may lead to claims being returned or delayed. Therefore, improving coder competencies, coding audits, and improving medical documentation is indispensable to reduce the number of pending claims.

The Relationship between Clinical Document Completeness and Pending Claims

The completeness of clinical documents has been shown to have a significant influence on pending claims, where incomplete documents significantly increase the risk of pending compared to complete documents. Clinical documents are the main basis for claim verification because they contain evidence of medical services, diagnosis, therapy, and the results of supporting examinations. Incompleteness of the documents causes the verifier to require additional clarification so that the claim process is delayed. These findings show that the discipline of health workers in filling out medical records and coordination between service units is very important to improve the smooth running of claims.

The Relationship between the Completeness of Administrative Documents and Pending Claims

The completeness of administrative documents was also significantly related to pending claims, although the effect was weaker than that of coding factors and clinical documents. Administrative documents serve as formal requirements in filing claims, so incompleteness of the file can slow down the verification process. However, because it is only supportive and does not directly reflect the patient's clinical condition, its effect becomes smaller after being analyzed alongside other variables. Therefore, administrative standardization and coordination between hospitals and BPJS are still needed to support the smooth claims process.

The Relationship between the Eligibility of Inpatient Medical Indications and Pending Claims

The feasibility of an inpatient medical indication has a significant relationship with the incidence of pending claims, where unsuitable indications increase the risk of pending compared to appropriate indications. Hospitalization indications are the basis for assessing the rationality of services in the INA-CBGs system so that the inconsistency of clinical conditions can trigger further clarification from the verifier. However, there are limitations in the operational definition of research that emphasizes the emergency aspect so that it does not fully represent inpatients from polyclinics. Therefore, the definition of hospitalization eligibility needs to be expanded to better suit service practices in hospitals.

The Relationship between Technical Accuracy of E-Claim Data Input and Pending Claims

The technical accuracy of e-claim data input showed a significant relationship in bivariate analysis, but it was no longer significant after controlling for other variables in multivariate analysis. This suggests that input errors are more a result of previous problems, such as coding inaccuracies and incompleteness of clinical documents. Input of e-claims is the final stage in the claim process so that the quality of data is highly dependent on the previous stage. Therefore, improvements to the claim system need to be carried out comprehensively, starting from medical documentation, the coding process, to the integration of hospital information systems with INA-CBGs.

Multivariate Analysis and Implications for Pending Claims

Multivariate analysis showed that ICD coding accuracy and clinical document completeness were the main determinants of hospitalization pending claims because they remained significant after controlling for other variables. Meanwhile, the completeness of administrative documents and the feasibility of medical indications remain influential but with a lower power, while the technical accuracy of e-claim input is not an independent factor. These findings confirm that the quality of clinical documentation and coding is the most important point in the INA-CBGs claims system. Therefore, improving coder competencies, strengthening medical documentation, integrating hospital information systems, and coordinating with BPJS Kesehatan are the main steps to minimize pending claims.

CONCLUSIONS AND RECOMMENDATIONS

This study concluded that the accuracy of ICD coding, completeness of clinical documents, completeness of administrative documents, and feasibility of inpatient medical indications had a significant relationship with the incidence of pending INA-CBGs claims at Marthen Indey Hospital Jayapura, while the technical accuracy of e-claim data input did not show a significant relationship. The most dominant factor influencing pending claims was the completeness of clinical documents, followed by the accuracy of ICD coding. Therefore, hospitals are advised to improve the quality of clinical documentation, coding accuracy, coder and claims officer competencies, as well as develop the integration of SIMRS with the INA-CBGs system. Researchers are then advised to conduct longitudinal studies and add other variables related to the service system and claims verification, while BPJS Kesehatan and the Ministry of Health are expected to strengthen regulations and integrate the national claims system to minimize the incidence of pending claims.

FURTHER STUDY

Further research is recommended using longitudinal design in order to describe the causal relationship between documentation factors, coding, and pending claims in more depth. In addition, the next study can add other variables such as electronic medical record systems, coordination between units, officer workload, and perceptions of BPJS verifiers to obtain a more comprehensive picture of the factors that affect pending INA-CBGs claims.

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