

## Analysis of Pending Claims in Cases of Mistakes in Codification of Diagnosis in the INA-CBGs Claim Problem Solution Management Guide

Yastori

Program Studi DIII Ilmu Rekam Medis, Apikes Iris, Indonesia

Jl. Gadjah Mada no. 23, Gunung Pangilun. Indonesia

### Abstract

*Pending claims are a problem and a challenge for coders, along with the presence of Minister of Health Regulation No. 24 of 2022, which provides greater challenges for coders in clinical classification coding activities. The research contributed to finding out Pending Claim Analysis in Cases of Mistakes in Codification of Diagnosis in the INA-CBGs Claim Problem Solution Management Guide. This research was carried out from March to May 2023 at the Hospital Casemix Department in Bukittinggi. The implementation of this research started with collecting secondary data using observation, interviews, and documentation methods. Processing and analyzing data by collecting, tabulating, narrating, and analyzing descriptively with a retrospective approach based on relevant regulations. The non-random sampling technique used in sampling is Purposive Sampling. The research results showed that there were 5 cases of pending claims that experienced errors in the codification of the claimed diagnosis. Codification errors are caused by mismatches in management and resources, the emergence of mortality codes, and discrepancies in examination result values with the diagnosis criteria claimed in accordance with the BPJS Minutes Management Guide for Solutions to INA-CBGs Claim Problems.*

**Keywords:** BPJS; INA-CBGs; Pending claim

**Article info:** Sending on October 24, 2023; Revision on November 15, 2023; Accepted on November 27, 2023

\*) Corresponding author: Yastori  
Email: [yastori2810@apikesiris.ac.id](mailto:yastori2810@apikesiris.ac.id)

### 1. Introduction

Minister of Health Regulation Number 24 of 2022 concerning Medical Records gives birth to the latest regulations regarding digital technology in the administration of Electronic Medical Records (RME). This regulation aims to improve the quality of health services, provide legal certainty in the administration and management of medical records, guarantee the security, confidentiality, integrity, and availability of medical record data, and realize the administration and management of digitally based and integrated medical records. One of the activities, according to the Minister of Health Regulation in Article 13 paragraph 1 letter is processing RME information by providing clinical classification codes in accordance with the international classification of diseases and medical procedures (PMK No. 24.2022). This is a challenge for coders in codifying diseases and appropriate medical procedures in health service facilities in preparing the ability to face Electronic Medical Records (Holmes et al., 2021).

Medical records are one of the factors that support health service efforts in hospitals, because

medical records can be used as a source of information related to patients, which contain notes about the patient's identity, anamnesis, diagnosis, treatment, and actions that have been given by doctors or nurses or officers. Other health. One of the activities carried out in processing medical record data is the codification/coding process (Jackson, 2019).

Implementation of diagnosis codification must be complete and accurate in accordance with ICD-10 guidelines. Incorrect patient diagnosis codes will result in the resulting information having a low level of validation. This can, of course, result in inaccurate reporting, such as outpatient morbidity reports, top ten disease reports or most importantly is the health care billing process through BPJS claims in Era JKN.

The implementation of codification is very influential on the input and implementation of financing claims to BPJS as the health insurance provider So that it is not uncommon for claims implementation to often experience pending claims due to claims codification errors. Pending claims are the return of claims that are not feasible by

BPJS to the hospital for re-examination because they have not yet been implemented. There is an agreement between BPJS Health and hospitals regarding administrative rules, coding, and medical rules.

Research conducted stated that many cases of errors in coding diagnoses by medical records officers were due to incomplete diagnoses written by doctors. In addition, a number of studies have been found to show that inaccurate diagnosis codes are still a problem in healthcare facilities. The accuracy of diagnosis codes has shown improvement in recent years, but the level of accuracy still ranges between 30-70%.

According to early research conducted in six (six) hospitals in the YARSI region of West Sumatra, problems that frequently arise include coders' incapacity and lack of knowledge to conduct analyses and integrate current ICD-10 and ICD-9-CM codification rules with Minutes of Management Guide for Problem Solutions. The guidelines for INA-CBG claims are given by the health insurance company (BPJS). Based on an initial review of multiple prior studies concerning coding errors or coding as a potential cause, over 50% to 60% discovered that there were numerous differences between primary and secondary diagnostic groups assigned to codes chosen in accordance with ICD claims management guidelines. or INA CBGs, so the purpose of this study is to examine the reasons behind unresolved claims in instances of claims diagnosis codification errors in comparison to the INA-CBG Claim Problem Solution Management Guide during the electronic medical record implementation process. This will help to reduce the number of errors and postponed claims while also maximizing coders' capacity to solve problems arising from electronic medical records.

In order to ascertain the Pending Claim Analysis in Cases of Claim Diagnosis Codification

Errors Against the INA-CBGs Claim Problem Solution Management Guide, this research was conducted. It is anticipated that this research will also be able to help hospitals' Casemix section reduce the number of pending claims, which raises hospital financing costs. The research contributed to finding out Pending Claim Analysis in Cases of Mistakes in Codification of Diagnosis in the INA-CBGs Claim Problem Solution Management Guide

## 2. Method

The research design was descriptive with a retrospective approach. The non-random sampling technique used is Purposive Sampling. Purposive sampling is a technique for determining samples with consideration. Data collection using observation, interviews, and documentation methods. Processing and analyzing data by collecting, tabulating, narrating, and analyzing descriptively. The implementation of this research started with collecting secondary data, checking the initial data, and then analyzing the data based on questionnaires and interviews. After data collection, analysis is carried out based on relevant regulations. This research will be carried out from March to May 2023 in the Casemix Section of the hospital in Bukittinggi. The total population from January-February 2023 is 61 pending claim cases. By using a purposive sampling technique, the researchers decided to carry out an in-depth analysis of 5 cases of pending claims.

## 3. Results and Discussion

The following are the results of research regarding the analysis of pending claims in cases of claims diagnosis codification errors against the INA-CBGs claims management guide which was carried out in January and February 2023. The analysis was carried out using the rules in ICD-10 and ICD-9 CM as well as the rules used by the insurance provider ([Table 1](#)).

**Table 1.** Analysis of Pending Claims Cases of Claim Diagnosis Codification Errors

BPJS CONFIRMATION	ANALYSIS OF MEDICAL RECORD DOCUMENTS	RESEARCH ANALYSIS (Based on ICD-10 and ICD-9-CM codification rules)	ANALYSIS BASED ON CLAIMS REGULATIONS
<i>Confirmation of hypo shock management? Is fluid loading appropriate for the management of hypo shock?</i>	<p><b>Emergency Assessment:</b> Previous Disease History: fever</p> <p><b>History of Current Illness:</b> Diarrhea, nausea, vomiting, GCS = 11</p> <p><b>Initial Diagnosis:</b> GEA moderate dehydration, low intelligence, hyponatremia, hypokalemia, battery</p> <p><b>Homecoming Summary:</b> Provisional diagnosis: GEA moderate dehydration, low intelligence, hyponatremia, hypokalemia, battery</p>	<p>DU: A91 DHF DS: R57.1 hypovolaemic shock A09.9 Gastroenteritis and colitis of unspecified origin N18.5 chronic kidney disease, stage 5</p> <p>Change the unspecified shock code because fluid therapy is inadequate for the coding criteria for hypovolemic shock, but shock therapy (distributive) is carried out with fluid loading. When the response to fluid loading is inadequate, shock therapy is continued with dopamine drip according to the procedure.</p>	<p>Hypovolemic shock can be used as a secondary diagnosis if there are appropriate clinical manifestations and treatment. The minimum treatment for hypovolemic shock is fluid loading. Exceptions in cases, hypovolemic shock as a secondary diagnosis can still be used without specific treatment in the condition of critical patients who have died before starting treatment.</p>

	<p><b>DU:</b> Acute on CKD stage 5 (A09)</p> <p><b>DS:</b> Hypokalemic shock, severe dehydration, hyponatremia, hypokalemia, thrombocytopenia, EC DHF</p> <p><b>Summary of Disease History:</b> Diarrhea since 5 days of SMRS, fever on the 4th day, vomiting 4 times a day, doesn't want to eat or drink, body is tired</p> <p><b>Physical examination:</b> blood pressure: 129/79 RR: 20x/minute</p> <p><b>The therapy:</b> Laudia, zinc, paracetamol, cefroxasim, IUFD NACL</p> <p><b>CPPT:</b> The patient had diarrhea and experienced hypophalemia with a pain scale of 2, the patient also experienced dengue shock syndrome and gea, then the patient moved to the ICU and had a catheter installed, the patient experienced DSS along with CKD, the patient still experienced DD CKD battery</p> <p><b>Patient Control Sheet:</b> Patients are given fluid control with water at an average speed of 220cc</p> <p><b>Patient Referral Sheet:</b> The patient was diagnosed with DSS and CKD at M. Djamil Hospital</p> <p>The EKG attachment is attached. The Immunocerology Appendix identifies covid sars negative</p> <p><b>Complete Blood Attachment:</b> High leukoside with a value of 29.1</p> <p><b>Urology laboratory sheet:</b> urine protein +1</p>	<p>Based on analysis of medical record documents and claim submission documents, there are differences in coding for primary diagnoses and secondary diagnoses. In the medical record document, the main diagnosis is chronic kidney disease, stage 5, while in the claim submission document, chronic kidney disease, stage 5 is the secondary diagnosis. This means that there are differences in the coding of primary diagnoses and secondary diagnoses in patient medical record documents and claim submission documents.</p>	
<p><i>Confirm EF results &gt;50? Please don't code chf</i></p>	<p><b>Admission Summary:</b> DU: CHF (I50.0) DS: CKD A.I</p> <p><b>Therapy:</b> IVD RL, Casic, Inj. Apnto, CPG, SPIRONOLACTON, kurkuma, cefixime, UDCA, Lansoprazole, Supcralfat, bisnat (heart clinic)</p> <p><b>Discharge Summary:</b> Initial Diagnosis: Edema, CHF, Asthma</p> <p><b>CPPT:</b> Inj. appropriate medication in the discharge summary.</p> <p><b>NOTE:</b> 1. ECG 2. Cardiac history of CHF, RW HT, RW COLE, RW pleural effusion, RW Asthma 3. RO Thorax, Colestectomy to RSAM</p>	<p>DU: I51.8 Other ill defined heart diseases DS: N19 Unspecified renal failure (Kode yang diajukan)</p> <p>Replace the CHF code with another heart disease because this patient has shown symptoms of heart failure with complaints of shortness of breath and leg edema but an echo examination shows a preserved EF (Ejection Fraction) above 50% and has a history of receiving diuretic therapy.</p> <p>EF (Ejection Praction ==&gt; unit value for measuring the amount of blood pumped out every time the ventricles contract) Amount of blood pumped: 50-70%.</p>	<p>Confirm the diagnosis of heart failure and/or cardiac dysfunction with echocardiography examination is mandatory and performed immediately in patients with suspected heart failure. Left Ventricular Ejection Fraction (FEVKi) is a measurement ventricular function to differentiate patients with disorders normal systolic function and patients with systolic dysfunction. Normal left ventricular ejection fraction is ≥50%.</p>
<p><i>Confirmation of cardiac arrest is not coded, please only</i></p>	<p><b>Initial Emergency Assessment:</b> Main complaint: Body tired</p>	<p>DU: I95.9 Hypotension, unspecified DS: I46.9 Cardiac arrest,</p>	<p>1. Cardiac arrest can occur in all cases (not only heart disease) &amp; there is evidence of management</p>

<p><i>code the diagnosis of hypotension, INA-CBG coding is a Morbidity code</i></p>	<p><b>Current Health History:</b> bed tired since 1 week, doesn't want to eat and drink, nauseous</p> <p><b>Past medical history:</b> Hypokalemia, dyspepsia</p> <p><b>Initial Diagnosis:</b> Hypotension, severe hypokalemia, severe hyponatremia, AKI, low intake</p> <p><b>Radiology Examination Sheet:</b> Effects of Miliary Pulmonary TB</p> <p><b>Laboratory Examination Sheet:</b> HB 10.3</p> <p><b>Death Report:</b> Patient Died</p> <p><b>Final Diagnosis:</b> Cardiac Arrest</p> <p><b>Cause of Death:</b> Hypotension, Hyponatremia, Hypokalemia, AKI</p>	<p>unspecified TM: 93.93 Nonmechanical methods of resuscitation</p> <p>This patient experienced a worsening of his condition due to cardiac arrest but it was not caused by hypotension but rather due to a sudden worsening of his miliary TB while he was being treated. Miliary TB cannot be coded because the patient has not received therapy so CPR is carried out in an effort to treat sudden cardiac arrest due to acute clinical deterioration.</p>	<p>of Cardiac Arrest, namely CPR 2. Cardiac Arrest cannot be used in DOA patients 3. INA-CBG coding is a Morbidity code</p>
<p><i>Confirm that post-correction sodium results are still low? Is the therapy complete and the patient goes home cured? Please don't code it</i></p>	<p><b>Initial Medical Emergency Assessment:</b> Main complaint; heartburn</p> <p><b>History of Current Illness:</b> heartburn, tightness in chest since two days ago, nausea (+), vomiting 4 times since 1 day, body tired, decreased appetite, feeling of palpitations</p> <p><b>Previous Diseases:</b> CHF, AF RVM</p> <p><b>Initial Diagnosis:</b> AF RVM Hyponatremia, AKI and dyspepsia</p> <p><b>Home Summary:</b> 1. Reason for Admission: AF RRBR + AKI + Hyponatremia + dyspepsy 2. Disease History Summary Measure: SDA 3. Physical examination: TD:118/75 ==&gt; 121/74 4. Clinical findings: ECG: AF MA: 128==&gt; 133, 5. RO Thorax: Cardiomegaly susp. initial pulmonary edema, total bilirubin 589, CR: 1.3 U(1.5) 6. Primary Diagnosis: AF 7. Secondary Diagnosis: Hyponatremia (120.9) 8. Therapy: T.Asplet, cande, spirola, bidoxin, azitro, UDCA</p> <p><b>Radiological Examination:</b> 1. Impression: cardiomegaly with early suspicion of pulmonary edema 2. On the ECG diagnosis information Atrial Fibrillation Susp. Left ANterior Hemi Block Lateral Myocardial Infarction (LaVL) V5.V6, Flattened I wave (LaVL) 3. Total bilirubin clonic chemical results 5.89 (standard &lt; 1.1) indirect bilirubin = 1.85 (standard: 0.0-0.75) direct bilirubin = 4.04 (0.0-0.25), SBOT = 9.25 (1.96)</p>	<p>DU: 148 Atrial fibrillation and flutter TM: 89.52 Electrocardiogram</p> <p>Remove hyponatremia because the natremi value is still below 135</p> <p>NOTE: NA=133 (Default 135-145) Initial Na= 128, Return Na=133</p>	<p>Conditions where sodium levels are lower than normal values (Na &lt;135 mEq/L), then the condition is still said to be hyponatremia, and can be used as a secondary diagnosis if treatment/therapy is given In children, sodium is below 130 and/or there is a clinical condition of seizures or decreased consciousness or severe dehydration. For those with concomitant heart disease below 135.</p>
<p><i>Confirm reselection of DI? E87.1 as DU based on the most resources?</i></p>	<p><b>Admission Summary:</b> Temporary Diagnosis: dyspepsia + abdominal colic</p> <p><b>Primary Diagnosis:</b> LBP + V10a4 compression fracture</p>	<p>DU: E87.1 Hypo-osmolality and hyponatremia DS: M54.56 Low back pain, lumbar region</p> <p>Hyponatremia is the primary</p>	<p>In conditions where sodium levels are lower than normal values (Na &lt;135 mEq/L), then the condition is still said to be hyponatremia and can be used as a secondary diagnosis if</p>

	<p><b>Secondary Diagnosis:</b> Hyponatremia</p> <p><b>Medication therapy:</b> IVFD NACL, ibuprofen, Paracetamol, eprinox, ranitidine, plantesid</p> <p><b>Clinical Findings:</b> Spondylosis with narrowing of the fetebral disc</p> <p><b>Disease History:</b> low back pain, nausea, vomiting, stomach pain, difficulty sitting, blood pressure 142/76, pulse 82, RR 20, T 36.5</p> <p><b>Inpatient Consultation Form:</b> The patient experienced LBP due to L4 compression</p> <p>CPPT The patient experiences a nutritional deficit and carries out 24 hour nutritional control, adequate nutrition On January 4, in the physiotherapy department, the patient experienced low back pain or LBP.</p>	<p>diagnosis because resources and treatment therapy are more directed towards natremia treatment in CPPT. Hyponatremia is also a more frequently controlled treatment.</p>	<p>treatment/therapy is given In children, sodium is below 130, and/or there is a clinical condition of seizures decreased consciousness, or severe dehydration. For those with concomitant heart disease below 135.</p>
--	---	---	--

Based on the five pending claim cases, it can be observed that the pending claim cases were caused by coding errors and diagnosis determination during the claim process in the INA-CBGs application, which is managed by BPJS as a national health insurance payment system. The pending claim case described is the first case submitted by the hospital to the insurance provider. Clinician involvement in coding has been proposed to improve accuracy. This error was caused by non-compliance with the coding criteria and determination of the diagnosis claimed according to the criteria for the Minutes of Joint Agreement on the 2019 INA-CBG Claim Management Guidelines. INA-CBG from The JKN program ensures That the entire Indonesian population is protected by comprehensive, fair, and equitable health insurance for claims are regulations provided by the health insurance provider (BPJS) ([Rossalina Adi Wijayanti, 2023](#)).

In the first case, The diagnoses are encoded using the ICD-10 ([Sebastian De Almeida Chaves, 2020](#)). the coding and selection of the diagnosis of hypovolemic shock could not be claimed because the fluid therapy given did not meet the criteria for hypovolemic shock management in the claims management guide in the 2019 BPJS minutes, but rather general shock management so that in the claims process hypovolemic shock was replaced with ordinary shock. Coder is responsible for the accuracy of the code of the diagnosis has been set by the doctor ([Linda Widyaningrum A. S., 2021](#)).

In the second case, the coding and diagnosis of CHF is also not in accordance with the 2019

BPJS minutes. Based on the guidelines in the CHF minutes, the diagnosis can be coded and claimed if the echo EF (Ejection Fraction) examination results are less than 50%, whereas in this case, the value of the Ejection Fraction is more than 50%. That support by Diagnosis timing and surgical timing extension codes have the ability to improve routinely collected and coded hospital discharge data to support research and the development of performance, quality, and safety indicators ([Vijaya Sundararajan, 2021](#)).

In the third case, the coding for the diagnosis of cardiac arrest could not be claimed because in the BPJS claim process using the INA-CBG application, the code that could be claimed was a morbidity code, whereas the cardiac arrest that was previously claimed was a form of the cause of the patient's mortality condition. BPJS Kesehatan is a legal entity formed to organize a health insurance program, one of which is in charge of paying claims submitted by advanced level referral health facilities based on disease codes according to WHO ICD-10 and medical action codes according to ICD-9-CM according to INA- CBGs ([Linda Widyaningrum W. M., 2022](#)).

In the fourth case, the patient's sodium condition could not be coded and claimed during the claim process because there was no therapy and clinical condition in accordance with the claims management guidelines in the 2019 BPJS minutes which indicated a sodium condition even though the Na level was less than 135 mEq/L. The level of accuracy of the code is also very influential on the smooth process, many -claims are returned or

pending status by due to the lack of complete information and inaccurate coding ([Puguh Ika Listyorini, 2022](#)). Then From the results of the document review, it was found that there were causes of pending claims at RSBT Karimun was Causes of hospitalization pending claims consisted of coding and diagnosis confirmations (45.08%) ([Yuni Fitriani, 2023](#)). That was support by Problems due to coding are still found in patient files that are not correct in giving the diagnosis code or procedure, this is one of the causes of pending claim.

In the fifth case, coding for the sodium condition must be used as the main diagnosis based on the number of resources and treatment therapies that are greater than the conditions in the provisional diagnosis of the discharge summary form. Coders thoroughly review medical records and assign ICD-10 codes to diagnoses, including main conditions and external causes ([Reza Golpira, 2021](#)). Hyponatremia reselection as the main diagnosis must be carried out because it is in accordance with the criteria in the claims management guidelines in the 2019 BPJS minutes.

Based on the research results, the discussion is explained as follows: This analysis is supported by research, where from the results of a review of 5 journals it was found that several factors can cause pending BPJS claims in inpatients. Some of the influencing factors are, incorrect coding. appropriately so that when verification is carried out by BPJS, this cannot be found, which will cause the medical records to be returned to the hospital, as a result, the submitted claim funds will be delayed. the rights and responsibilities of the doctor (medical staff) concerned must not be changed, therefore the diagnosis in the medical record must be filled out completely and clearly according to the directions in the ICD-10 book ([Dola Ramalinda, 2022](#)). Inaccuracies in the Diagnosis Code will affect the reports generated from the code and will affect the decision making, besides that it will affect the costs that must be paid by the patient to the health service (Linda Widyaningrum L. D., 2019).

In line with research ([Hindun, 2023](#)) regarding Factors Causing Pending BPJS Health Inpatient Claims in Hospitals. Enforcement of diagnoses does not match the criteria starting from differences in perceptions of diagnostic enforcement standards between DPJP and BPJS Health. Base from global case On the basis of ICD-9 and ICD-10 codes, 764 of 1237 patients (61.8%) had cases that were accurately coded as sarcoma, 208 of 1237 patients (16.8%) had a nononcologic diagnosis. As line with Factors: differences in viewpoint regarding diagnosis codes between hospital coding officers and BPJS Health verifiers and discrepancies in main diagnoses with DPJP.

Regulation factor includes no standard procedure related to pending claim and no standard procedure related to claiming inpatient BPJS patients ([Semarajana, 2019](#)).

Pending claims occur due to whether there is a non-compliance or not incomplete filling of items in the medical record, errors made by staff input process, apart from differences in understanding regarding the completeness of the claim file between the hospital's internal verifier and the BPJS Health verifier. Training, Monitoring and evaluating compliance officers regularly fill in the requirements sheet submitted to the verifier BPJS is a step that can be taken to minimize cases of pending claims ([Santiasih, 2021](#)).

Health records, both electronic and paper based, represent a source of information about the patient's health status, diseases, disease progression, procedures, treatment effectiveness and quality of healthcare ([Vera Alonso, 2019](#)). Since the launch of the BPJS Health program by the government, it has had a major impact on the Health Information Medical Record (PMIK) profession ([Yastori, 2021](#)). ICD codes is recommended in data sources where these codes are available, such as in electronic healthcare records ([Amani F. Hamad, 2021](#)). As in the countries/regions contributing of ICD classifications are in use for morbidity and mortality statistics, for homogeneity reasons that have considered crossreferenced ICD-10 codes ([Monica Mazzucatio, 2023](#)). These codes are important for population-based injury surveillance; however, they are not required for discharge billing reimbursement ([Ashley M Bush, 2021](#)). A continued improvement in America that ICD-10 coding productivity was observed, with an average coding time of 37.45 minutes in July 2016 ([Sheila V. Kusnoor, 2019](#)).

#### 4. Conclusions and suggestions

The discovery that pending claims cases resulted from inaccuracies in the diagnosis codes that were claimed to BPJS was revealed after a review of cases of inaccurate diagnosis codes during the March–April 2023 period. The reason for this issue was that the enforcement criteria and diagnosis codification criteria that should have been invoiced to BPJS did not match the coding that the coder did for the diagnosis that was claimed to their company. When actions and resources are taken against the diagnostic or the management guidelines outlined in the INA-CBG claim problem solution management guide, a discrepancy might be detected. Errors can also be caused by mortality circumstances that don't belong in the morbidity category,

Researchers advise coders to pay more attention to the codification of diagnoses that will

be claimed by increasing accuracy in paying attention to each claim document to see the suitability between the diagnosis and existing management and its support for primary and secondary diagnoses. Coders must pay attention that in INA-CBGs coding only uses morbidity codes. Coders must also pay attention to the coding criteria for diagnoses with ICD-10 and ICD-9-CM as well as in the minutes of management guidelines for solutions to INA-CBGs claim problems.

## 5. References

- Amani F. Hamad, V. L.-W. (2021). Mapping Three Versions of the International Classification of Disease to Categories of Chronic Conditions . *International Journal of Population Data Science*, 7. <https://doi.org/10.23889/ijpds.v6i1.1406>
- Ashley M Bush, T. L. (2021). Identification of Work-Related Injury Emergency Department Visits Using International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes. *BMJ*, 13. <https://pubmed.ncbi.nlm.nih.gov/33674326/>
- Dola Ramalinda, E. Y. (2022). Pending BPJS Claim to Support the Quality of Ourstanding Hospital in Muhammadiyah Hospital Bandung . *International Journal of Health Sciences*, 1487. <https://doi.org/10.53730/ijhs.v6n3.13107>
- Holmes, J. H., Beinlich, J., Boland, M. R., Bowles, K. H., Chen, Y., Cook, T. S., ... & Moore, J. H. (2021). Why is the electronic health record so challenging for research and clinical care?. *Methods of information in medicine*, 60(01/02), 032-048. <https://doi.org/10.1055/s-0041-1731784>
- Jackson, C. T. (2019). Synergistic Ethos: A Hybrid Approach to Designing Process Improvement for Healthcare Providers. <https://doi.org/10.1097/JHQ.0000000000000154>.
- Linda Widyaningrum, A. S. (2021). Accuracy Code Cronic Obstructive Pulmonary Disease. *International Conference of Health, Science and Technology* (p. 11). Surakarta: International Conference of Health, Science and Technology . <https://doi.org/10.47701/icohetech.v1i1.1070>
- Linda Widyaningrum, L. D. (2019). *Correlation Between Reselection Rule Main Diagnosis and Accuracy Code*. *International Conference of Health, Science and Technology* (p. 20). Surakarta: LPPM Universitas Duta Bangsa. <https://doi.org/10.47701/icohetech.v1i1.750>
- Linda Widyaningrum, W. M. (2022). Identification Pending Claim of Healthcare and Social Security Agency Insurance at Nirmala Suri Hospital. *International Conference of Health, Science and Technology* (p. 264). Surakarta: LPPM Universitas Duta Bangsa. <https://doi.org/10.47701/icohetech.v3i1.2251>
- Monica Mazzucatio, L. V.-C. (2023). Comparison of the Accuracy and Cross Country Comparability. *Orphanet Journal or Rare Disease*, 4. <https://doi.org/10.1186/s13023-023-02864-6>
- Puguh Ika Listyorini, N. A. (2022). Analysis of Pending Claim Due to Incompatibility of Diagnostic and Action Codes in Inpatients in Hospitals. *International Conference of Health, Scienci and Technology* (p. 394). Surakarta: LPPM Universitas Duta Bangsa . <https://doi.org/10.47701/icohetech.v3i1.2257>
- Reza Golpira, Z. A. (2021). Evaluation of the Implementation of International Classification of Diseases, 11 th Revision for Mobility Coding: Rationale and Study Protocol. *Informatics in Medicine Unlocked* , 6. <https://doi.org/10.1016/j.imu.2021.100668>
- Rossalina Adi Wijayanti, R. D. (2023). BPJS Pending Claim Settlement Strategy In Hospital With Management Apprpach (Planning, Organizing, Actuating, Controling). *IJHITECH*, 28. <https://publikasi.polije.ac.id/index.php/ijhitech/article/view/3917>
- Santiasih, W.A. (2021). Analisis Penyebab Pending Klaim BPJS Kesehatan Rawat Inap di RSUD Dr. RM, Djoelham Binjai. *Journal of Healthcare Technology and Medicine* (p.1381). Universitas Ubudiyah Indonesia. e-ISSN : 2615-109X. <https://doi.org/10.31983/jrmik.v6i1.9462>
- Sebastian De Almeida Chaves, H. D.-M. (2020). Assessment of the Accuracy of Using ICD-10 Codes to Identify Systemic Sclerosis. *Clinical Epidemiology*, 1355-1359. <http://doi.org/10.2147/CLEP.S260733>
- Sheila V. Kusnoor, M. N. (2019). A Narrative Review of the Impact of the Transition to ICD-10 and ICD-10-CM/PCS. *JAMIA*, 126-131. <https://doi.org/10.1093%2Fjamiaopen%2F00z066>
- Semarajana, P. S. (2019). Factor Related to Pending

- Claim in Indonesian National Health Insurance (JKN): A Systematic Review . *Proceeding of International Conference on Applied Science and Health* (p. 771). Indonesia: ICASH. <https://publications.inschool.id/index.php/icsash/article/view/700>
- Vera Alonso, J. V. (2019). Health Records as the Basis of Clinical Coding: Is the Quality Adequate? A Qualitative Study of Medical Coders Perceptions . *Health Information Management Journal*, 28. <https://journals.sagepub.com/doi/10.1177/1833358319826351>
- Vijaya Sundararajan, M.-A. L. (2021). Coding Mechanisms for Diagnosis Timing in the International Classification of Disease , Version 11. *BMC Medical Informatics and Decision Making*, 6. <https://doi.org/10.1186/s12911-022-01990-8>
- Yastori. (2021). Cases of Dispute and pending Claims in Hospitals in the Era of National Health Insurance. *Proceeding International Conference on Medical Record (ICMR) 2021*, (p. 33). Padang. <https://doi.org/10.47387/icmr.v2i1.152>
- Yuni Fitriani, B. H. (2023). Evaluation of Pending Claims Bakti Timah Karimun Hospital in Assessing the Effectiveness of the V-Claim Application. *Journal of Social Research*, 1104. <http://dx.doi.org/10.55324/josr.v2i4.781>