



## The Accuracy of the Indonesian Social Health Insurance Patients Control Code towards the Hospital Cost Services

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### Abstract

**Background:** *The current health care financing system in Indonesia is based on Casemix CBG'S INA (Indonesia Case Base Group's), the hospital will get the payment based on the average cost spent by a diagnosis group. The diagnosis code and medical action determine the size of the rates that appear in the INA CBG's software. In the outpatients of the control patients, the majority were only given the code Z09.8 (Follow-up examination after other treatment for other conditions) which means all examinations after hospitalization for various conditions. The provision of diagnostic codes and medical actions for outpatients if they do not pay attention to the patient's disease condition, has the potential to cause harm to the hospital.*

**Method:** *This type of research is descriptive analytic with a cross-sectional design. The research subjects were the outpatient coder and internal verifier. The object of the study was medical records of Indonesian social insurance outpatient at the General Surgery I Polyclinic in August-October 2017 totaling 811 documents with a total of 89 samples.*

**Results:** *The results of the study were 89 samples, the exact diagnosis code was 20 (22.5%), and the incorrect code was 69 (77.5%). It is inappropriate for the code to be recorded appropriately, which experienced a rates increase of 52 (58.4%), and a decrease of 17 (19.1%). The hospital has a loss of 5.60% of the rate that should be obtained by the hospital. The aspects of human resources, facilities and infrastructure are good.*

**Conclusion:** *For the implementation of outpatient codification must be based on the diagnosis of disease and supporting data. Coder must be maximal in re-verifying the result of the coding using complete supporting documents.*

**Keyword:** *Accuracy of Code, Rate of INA-CBG's, Control Code, Indonesian Social Health Insurance.*

### Introduction

Government policy in assisting the community in obtaining quality health services is through Health Insurance managed by the Health Social Security Administering Agency or in Indonesia is known as *Badan Penyelenggara Kesehatan Nasional (BPJS)* ) in the form of National Health Insurance (JKN). This financing system uses a Casemix-

based CBG'S INA Health Service Payment System (*Indonesia Case Base Group's*) which is an application used as a claim for payment by a hospital as a health service provider.

*Case Base groups* is a payment method for patient care based on diagnoses or cases relatively similar. In the payment using this system the hospital and the payer no longer specify the bill

based on the details of the service provided, but only by submitting the patient's exit diagnosis and diagnosis code in the INA-CBG's application, the hospital will get the payment based on the average cost spent by a diagnosis group. The diagnosis and medical action codes determine the number of rates that appear in the CBA's INA software. Errors in writing diagnoses and therapeutic actions will affect taxes that affect hospital income.

According to Dewi(2014), the results of research on the existence of hospitals that suffered losses due to incompatibility in the number of claims paid by the number of costs incurred by the hospital for service. Research conducted at Dr. Kariadi Hospital said that the results of coding that did not match the potential to reduce hospital income on average by 4.04% of claims that should be received by the hospital. Aspects of complete diagnosis and accuracy of disease coding (62.5% - 78%) affect the claims in Pandan Arang Hospital Boyolali (Oriza, 2015).

The accuracy of diagnosis codes and medical procedures is influenced by the coder that determines the diagnosis code and medical procedures based on the data contained in the medical record. Another factor is the doctor who writes the diagnosis and procedures medical performed, the completeness of the medical record documentation, the coding facilities and infrastructure, and the policy related to coding issued by the hospital. This is supported by the results of research on the accuracy of coding diagnosis and medical procedures as well as the factors that influence the efficiency of the clinical data code showing that the doctor's understanding of ICD-10 is still lacking, and the leading factor in the application of complete diagnostic writing in accordance with ICD-10 is not optimal ().

The implementation of diagnosis coding and medical treatment both inpatient and outpatient at Tugurejo Regional General Hospital has referred to ICD 10 and ICD 9 CM, but in outpatients the majority control patients were only given code Z09.8 (*Follow-up examination after other*

*treatment for other conditions*) which means all checks/controls after hospitalization for various conditions. The provision of diagnostic codes and medical actions for outpatients if they do not pay attention to the patient's disease condition, has the potential to cause harm to the hospital.

Various problems caused due to the inaccurate coding of diagnosis and medical measures, especially against hospital losses, the researchers intend to research to find out the influence of the accuracy of Indonesian social insurance patient control codes on the number of outpatient care costs.

### Methods

This type of research is descriptive analytic, with a cross-sectional design that is, to determine the effect of coding accuracy on the outpatient service/claim costs and to know the factors that cause inaccurate coding of medical records performed by the impact coder and the effect observed at the time the same one. This research was conducted in Outpatient Hospital Tugurejo Semarang. The population in this study were the outpatient coder and internal verifier of Tugurejo Hospital Semarang. Medical records of Indonesian social insurance patients outpatient polyclinic general surgery I August-October 2017 totaling 811 documents in Tugurejo Hospital Semarang. The sample in this study were 89 documents. Data collection in this study was obtained through coding data generated by coder on outpatient medical record documents and the number of claims produced by INA CBG'S software. Data analysis performed was descriptive analysis to describe the accuracy level of diagnosis codes and medical procedures on the number of outpatient claims.

### Results

Based on the results of the study, it can be seen that the exact diagnosis code is 20 medical records or about 22.5%, while 69 medical records or approximately 77.5% are not inappropriate. Inappropriate codes are caused by the use of the

fourth character code that is incorrect, namely 47 cases including post hernia surgery patients coded Z09.8 (*After Other Treatment For Other Condition*) code should be given Z09.0 (*Follow Up Examination Follow Up Examination After Surgery for Other Condition*). Codification errors are also found in incomplete diagnoses found in outpatient slips, amounting to 22 cases.

Based on interviews, it is known that there are obstacles in the coding process, that is, doctor's writings that are unreadable. The hospital's internal verifier stated the same constraints about the doctor's writings that were unclear. The Verifier will analyze the claim document to verify the diagnosis and therapy provided by the doctor in charge of the patient. Based on the results of the interview, the majority of the codes used for outpatient cases are Z code. This is consistent with the statement from respondent B as an internal verifier that states that the majority of outpatients use Z code.

Use of control codes in outpatients in Tugurejo Hospital Semarang if using code Z09.8 compared to other Z codes that adjust to the patient's actual condition which will affect the claim rate. For the classification of education does not meet if the minimum education is not D3 Medical Record. Based on a statement from the hospital's internal verifier, the hospital will suffer losses if all outpatient cases use code Z09.8, the code adjusts to the diagnosis and the course of the patient's disease.

Outpatient coding officers know that if all outpatients use the Z09.8 code, it will affect the INA-CBG's claim rates, but because of the limited number of outpatient coders totaling one person, for service efficiency, outpatient registration officers also pass coding in the SIMRS application. Internal verification does not verify all outpatient claim files due to time constraints, only patients with many differences in the results of INA-CBG's claims are tested again.

### Discussion

The completeness of the information provided by medical personnel is essential in managing

medical records, especially for coding activities. The integrity of medical records is carried out through quantitative and qualitative analysis during assembling operations. Coder must select diagnoses and actions that must be coded from available medical records. Besides, Coder also looked at medical support reports if the patient did a supporting examination and then the code was determined from the diagnosis of the action (Appriliant, 2013).

Implementation in documenting medical records at the Tugurejo Regional General Hospital Semarang is still not optimal, especially in the completeness of the information supporting the codification of Indonesian social insurance control case-patients. According to the Decree of the Minister of Health of the Republic of Indonesia Number 129 of 2008 concerning Hospital Minimum Service Standards, medical records are said to be complete if the completeness reaches 100%, so the documentation at the Tugurejo Regional General Hospital Semarang is still not in accordance with the standards set by the government. Because of incompleteness in the control case information by medical personnel, it has an impact on the coding of the control case by the coding officer, so that the coding officer cannot carry out proper coding activities.

Based on the results of observations and completeness analysis of medical records if a diagnosis was found with a case-control that did not write down the information given to any patient, the coder immediately wrote the code Z09.8. Supposedly, if the diagnostic support information is incomplete, then the coder needs to open a medical record directly not only based on the registration slip. And there needs to be socialization for medical personnel regarding the completeness of diagnostic information along with information that the patient underwent a series of examinations so that it can produce appropriate and specific codes according to ICD-10.

The process coding must be carried out sequentially, wholly and correctly to avoid errors. According to WHO (2011), officers coding at

least see the outpatient resume on the patient's medical record. Activities and actions and diagnoses in the medical history must be coded and subsequently in the index to facilitate service in the presentation of information to support the planning, management and research functions in the health sector (MOH, 2006).

Ardian (2014) mentions that the encoding process to be monitored for several elements as follows:

- a. Consistent when encoded differently coded officers remained the same (reliability).
- b. The exact code matches the diagnosis and action (*validity*).
- c. Includes all diagnoses and actions in medical records (*completeness*).

The diagnosis coding process at Tugurejo Hospital Semarang uses ICD-10 (*International Classification of Diseases and Related Health Problems*) while for action codes based on ICD-9CM. This has been following Minister of Health Regulation No. 27 of 2014 concerning the INA-CBG System's Technical Guidelines which explains that the grouping basis in the INA-CBG's uses a codification system from the final diagnosis and procedures to be the output of services, concerning ICD-10 for determination and ICD-9CM for procedures.

The accuracy of patient control code Indonesian social insuranceterms of human resources, infrastructures, as well as the Standard Operating Procedure (SOP) in the coding diagnoses in outpatient hospital TPP Tugurejo Semarang influenced by several such as factors human resources, knowledge, and the means of implementation (Wijono,1999).

This is in accordance with the Decree of the Minister of Health of the Republic of Indonesia Number 377 / Menkes / SK / III / 2007 concerning Professional Standards for Medical Recorders and Health Information which are Education Qualifications DIII Medical Records and Health Information, DIV Health Information Management, S1 Health Information Management, and S2 Health Information Management. Following

medical recorder competencies that medical recorders can establish disease codes and actions appropriately according to the classification applied in Indonesia (ICD-10) about diseases and therapeutic activities in services and management health.

Knowledge affects the level of accuracy of the code. This is following the coding rules in Indonesia, namely using ICD 10 and ICD-9-CM. Before giving the code first to determine the type of statement that will be encoded and look at the corresponding alphabetical index, if the report is a disease or injury or other conditions are classified in chapters I-XIX or XXI, refer to section I alphabet index. Look for *lead terms*, read and follow the notes below *lead terms*. Refer to the tabulation list for the suitability of the number selected code. The category three character record in the index with a dash on the specification means that category three characters can be seen in volume 1. Furthermore, details can be seen from the position of additional characters that are not indexed, if used can be seen in amount and then set the code (Calvin, 2013).

The clerk knows how to code correctly. However, in its implementation, it is not carried out by actions that are following experience. Following the Minister of Health Regulation No. 36 of 2015 concerning Prevention of Fraud in the Implementation of the program. One potential that can lead to fraud is the health insurance claims or the request for payment of health care costs by health facilities to Indonesian social health insurance. Cheating can also be done by the insurance participants, the health insurance officers, health service providers and / providers of drugs and medical devices. One of the fundamental reasons hospitals place internal verification officers is to prevent fraud committed by hospitals that can cause losses. To minimize the hospital losses, the hospital must verify the code provided by the coder, not only for inpatients but also for outpatients.

According to Lilyweri (2008), facilities and infrastructure affect the level of accuracy of the

code, and this is following the application of risk management which is a structured approach /methodology in managing uncertainty related to threats, a series of human activities. Risk assessment, development of strategies for managing it and mitigation risk using resource empowerment/management. The use of ICD 10 and ICD-9-CM is following the Minister of Health Regulation No. 27 of 2014 concerning the INA-CBG's system that applies in Indonesia.

### Conclusion

Of the 20 (22.5%) codes that are correct and do not experience a rates increase or a rates reduction of 0% or none. A total of 69 (77.5%) codes were incorrect if adequately coded re-, which experienced a rates increase of 52 (58.4%), and a decrease of 17 (19.1%). The hospital has a loss of 5.60% of the rate that should be obtained by the hospital. Human Resources (HR), Facilities and Infrastructure, and Standard Operating Procedures (SOP). Outpatient coding officers already have an educational background on medical records, facilities and infrastructure using electronic ICDs, and the availability of outpatient disease codification SOPs at Tugurejo Hospital Semarang.

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