Correlation Between Reselection Rule Main Diagnosis and Accuracy Code

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Abstract—The diagnosis code has a very important role in making policies for health care providers. This study is an analytical study with a cross sectional approach. The method used is observation, interview and check list. The study sample was 81 out of 431 inpatient medical record documents. and sampling technique with systematic random sampling from. Data analysis uses univariate and bivariate with Fisher's.

The percentage of accuracy of reselection rules shows 64% accuracy (52 documents) and inaccurate is 36% (29 documents). The percentage of accuracy of reselection rules is 69 documents with a percentage of 85% and 12 documents incorrect with a percentage of 15%. The results of the Fisher's statistical calculation show no corelation to the primary diagnosis based on reselection rules with the accuracy of the diagnosis code based on ICD-10 (p = 0.529).

Keywords—diagnosis code, medical information

I. INTRODUCTION

Health services of health care facilities need to be supported by various factors, including those related to the recording of informative, complete and continuous patient medical data. The form of health facilities is one of them is a hospital, where there is a good and correct medical record. Medical record is core of the hospital because it contains history of the patient's disease history.

Medical records contain data or information about the chronological development of health service activities. Health information is one of the important parts that cannot be separated from the health system in a country. In an effort to obtain accurate, timely, and appropriate health information in decision making, standards are used for coding morbidity data, based on the International Statistical Classification of Disease and related health problems 10 Revision (ICD-10) as a classification system for diseases. The disease diagnosis classification system is an order of grouping of disease units arranged alphabetically and numerically which aims to facilitate retrieval and analysis of data [7].

The important thing must be considered by medical recorders is the accuracy in administering patient diagnosis codes must be in accordance with the instructions and regulations in the applicable ICD-10 book guidelines [1]. The diagnosis coding results will facilitate the recording, collection and retrieval of information in accordance with the diagnosis or medical operation required (medical terms). If the diagnosis and the code listed on the medical record file are incorrect, it can have an impact on the cost of health services [4].

The ICD-10 is now used as a standard guidebook used by hospitals to determine the patient's primary diagnosis code. In the coding process, the ICD-10 provides specific guidelines for selecting the causes or conditions that will be encoded and the coding process. Rules and guidelines regarding the selection of conditions or a single cause used for routine tabulations in death certificates or records of morbidity have been adopted by the World Health Organization at the World Health Assembly meeting, specifically with regard to the revision of ICD-10 [6][8]. The diagnosis code is determined by coder must attention which conditions should be the main diagnosis based on reselection rules on volume ICD-10. in this case the coder communication with the doctor plays an important role in determining the main diagnosis

The coding application is used to index disease records, facilitate the process of storing and retrieving data related to diagnosis of patient characteristics and service providers, basic ingredients in grouping INA-CBG's (Indonesian Case Base Groups) for service payment collection systems, analysis of health service financing, national reporting and international mortality and morbidity, as well as for epidemiological and clinical research [2].

The Health and service provider that apply coding as morbidity data, namely BBKPM Surakarta. BBKPM Surakarta is the Center for Surakarta Lung Health. The preliminary survey was initiated by researchers by conducting interviews with the Head of Medical Records regarding coding procedures, that the coding process used ICD-10. Researchers obtained inpatient patient data as many as 431 patients in 2018. Researchers took 10 inpatient medical record documents to be sampled. Researchers collect data in 2018 because the data is complete and available. The survey results on 10 inpatient medical record documents were randomly selected, namely, percentage determination of the main diagnosis based on 90% correct reselection rules, and 10% incorrect, for accuracy of accurate diagnosis code 40% and inaccurate as much as 60%, which is due to lack of proper code and lack of code.

II. METHOD

This was an observational analytic study with a cross sectional design. Data were analyzed by univariate and bivariate by chi-square (fisher"s). The study population was all medical records at BPKPM, Surakarta. The number of samples in the study were 81 medical record documents which were selected by stratified random sampling. Data was collected using observation tables, medical record quality document analysis sheets, accuracy of diagnosis codes.

III. RESULT

A. Reselection Rule Main Diagnosis

As seen in Table 1, the result of Reselection Rule Main Diagnosis in BPKPM Surakarta is 85% accurate and 15% Inaccurate. The medical record documents, and for inaccuracies in accordance with Rule MB. Based on table

4.2 for inaccuracies in accordance with the Rule MB 2, some conditions are recorded as "Main Conditions", and other details on the records refer to one of these conditions as "Main Condition" for treatment patient, the condition was chosen. 8 3 are conditions that are recorded as "Main Conditions", describe symptoms that arise from a diagnosis that is handled if a symptom or tabda (usually classified in chapter XVII), or a problem that can be classified for chapter XXI, is recorded as "Main Condition" , and this clearly gives signs, symptoms, or problems with the condition being diagnosed elsewhere and treatment is given for the last condition, so reselection of the condition diagnosed with the condition as "Main Condition", totaling 4 medical record documents. The cause of the inaccuracy of the reselection rule is that it is incompatible with Rule MB 1-5 according to ICD-10 volume 2 [12]. For example in the diagnosis of Haemoptysis, Suspension of Pulmonary TB with investigation of blood Labs and TB Counseling, nutrition. Not right, because the blood lab results show normal and patients get nutritional counseling and TB so that they use the Rule MB 3.

Table 1. Reselection Rule Main Diagnosis

Variabel	N	%
Reselection Rule Main Diagnosis		
Accurate	69	85%
Inaccurate	12	15%
Total	81	100

B. Accuracy Diagnosis Code

As seen in Table 1, the result of accuracy diagnosis code in BPKPM Surakarta is 64% accurate and 36% Inaccurate.

Table 3. Quality of diagnosis code in Dr. Moewardi hospital

Quality of diagnosis code	N	%
Accurate	52	64%
Inaccurate	29	36%
Total	81	100

The results of the univariate analysis of the accuracy of the inpatient diagnosis code were obtained by the number of accurate codes as many as 52 documents with a percentage of 64% and an inaccurate amount of 29 documents with a percentage of 36%. These inaccuracies are caused by incorrect selection of codes and are not coded, and observations that the patient's medical record documents return have not yet been completed in assembling, but the following day patients come to the hospital to carry out polyclinical examinations so that only outpatient diagnosis is only seen without outpatient care the inpatient medical record document has been coded yet and the document is directly inserted into the filing rack.

Based on table medical record documents that are wrong in the selection of the diagnosis code. Examples of the diagnosis of hyperglekemia and DM should be coded in combination with the code E14.0 [11] but in the medical record document is coded individually so that two codes are obtained. Based on Table l medical record documents that are not coded. Examples of the diagnosis of hypostatic pneumonia should be coded with code J18.2 but not in the medical record document.

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. This is in accordance with theory [9] that coded data quality is important for health management personnel, health care facilities, and health information management professionals. The accuracy of diagnostic data is crucial in the field of clinical data management, cost control billing, along with other things in the form of care and health services that have been given to the patient's hospital [10]. If the patient uses a health insurance card, the role of the coder is very important in the health insurance process that will benefit or harm the hospital [3].

C. Correlation between the quality of medical information and the quality of the diagnosis code

Based on the results of the 2x2 table it is not feasible for the chi square test because cells with expexted values are less than five, there are 25%, the number of cells is a. therefore the test used is an alternative test that is the Fisher's exact test with the results of 0.529 thus $\rho = 0.529$ which means $\rho > 0.05$, meaning that H0 is accepted and Ha is rejected thus there is no relationship in determining the main diagnosis based on reselection rules with accuracy diagnosis code based on ICD-10 in hospitalized patients at BBKPM Surakarta

The results of this study have no relationship because there are other causes, namely because of the inaccuracy of medical terminology, incomplete medical information and specifications for diagnosis [5].

IV. CONCLUSION

The accuracy accuracy of diagnosis code in BPKPM Surakarta a is 85% accurate and 15% not accurate. the accuracy diagnosis code in BPKPM Surakarta a is 64% accurate and 36% not accurate. Corelation the Fisher's exact test with the results of 0.529 thus $\rho = 0.529$ which means $\rho > 0.05$, meaning that H0 is accepted.

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