



An Overview of the Completeness and Clarity of the Writing of Medical Actions in the Accuracy of the Code of Actions in the Surgical Ward at Lubuk Basung Hospital

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ABSTRACT

Medical coding is a vital part of hospital information systems, converting clinical data into standardized codes such as ICD-9-CM. The accuracy of these codes is strongly influenced by the completeness and clarity of medical procedure documentation. This study aims to assess the completeness and clarity of procedure documentation in relation to coding accuracy in the surgical ward of Lubuk Basung Hospital. A descriptive quantitative method was used, with data collected through observation of 61 medical records out of 155, selected via accidental sampling. A checklist table was used as the research instrument, and data were analyzed univariately. Results showed that 39 records (63.9%) had incomplete documentation, while 22 records (36.1%) were complete. In terms of clarity, 30 records (49.2%) were unclear, and 31 (50.8%) were clear. Regarding coding accuracy, 32 records (52.5%) were inaccurate, and 29 (47.5%) were accurate. These findings indicate that the level of accuracy of coding medical procedures is still relatively low and has a close relationship with documentation problems, especially those related to aspects of completeness and clarity of information. The study underscores the need to improve documentation quality by healthcare providers and to enhance coding accuracy by coding staff. Strong collaboration between medical teams and coders is essential to ensure accurate data and support high-quality hospital services.

Keywords: Completeness, Clarity, Accuracy, ICD-9 CM



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INTRODUCTION

A medical record is a file that contains information and documents related to a patient's identity, examination, treatment, *procedures* and other services provided to the patient. Medical records must contain sufficient data to identify the patient, support the diagnosis or cause of the patient's arrival at the hospital, perform the action and accurately document the results of the action. One of the activities for organizing medical records that is coding carried out by medical recorders and health information personnel (Ministry of Health Regulation No. 24 of 2022).

Medical records are important documents that reflect the patient's health condition, including disease history, diagnosis, medical actions, and treatment results. Therefore, medical records have a crucial role in supporting health services, administrative processes, and legal protection for patients and medical personnel. One of the important aspects in managing medical records is maintaining the confidentiality of patient information. The Data contained in it is personal and should not be disclosed without proper permission, in accordance with professional ethics and legislation. Medical records officers are required not only to understand data management techniques, but also to have high integrity in maintaining the confidentiality of Patient Information (Ministry of health of the Republic of Indonesia, 2022).

In addition to maintaining confidentiality, medical records officers must also have good communication skills, both with patients and with other medical personnel. Effective communication is essential to ensure that the data received is accurate and complete, as well as supporting the correct documentation process. Not only that, the medical records officer also has a great responsibility in the medical coding process, which is to set the disease code and actions based on the information contained in the medical record. The accuracy of the coding greatly affects the validity of hospital data, financing claims, and health statistics used in the planning and evaluation of Health Services (Ministry of health of the Republic of Indonesia, 2022).

In accordance with the Professional Standards of medical recorders and Health Information, a medical recorder must be able to determine the code of action precisely by using the classification system applicable in Indonesia, namely ICD-9-CM (International Classification of Procedures, Ninth Revision, Clinical Modification). This system is an international standard established by the World Health Organization (WHO) and is used to systematically present data on medical procedures or actions. Mastery of this classification system is one of the indicators of the competence of medical records personnel in maintaining the quality of clinical data, ensuring the accuracy of reporting, and supporting data-based decision-making in health care facilities (World Health Organization, 2024).

Medical coding is the process of giving clinical classification codes to diagnoses and medical actions performed on patients, based on the applicable international classification system, namely the International Classification of Diseases and Related Health Problems (ICD) and the International Classification of Procedures (ICD-9-CM). According to the regulation of the Minister



of health of the Republic of Indonesia number 24 of 2022, coding aims to facilitate the presentation of clinical information used in various important functions, such as hospital management planning, clinical decision making, and research in the field of Health. Accuracy in coding largely depends on the clarity and specifics of writing the main diagnosis by the doctor.

The written diagnosis must be informative, descriptive, and accurately reflect the main condition of the patient in order to be correctly classified into the categories available in the ICD-10 system for diagnosis and ICD-9-CM for medical measures. Thus, good collaboration between doctors as clinical data recorders and coding officers as data managers largely determines the accuracy of coding, which ultimately has an impact on the quality of health information available. The factors that affect the accuracy of the coding are the clarity of writing the diagnosis and actions, the completeness of the writing and the accuracy in setting the diagnosis code (Oktamianiza, 2019). If the coding of medical action or diagnosis is not appropriate, it will affect the report of morbidity, mortality and calculation of various hospital statistics. Common problems occur during code assignment due to the writing of the medical Act is not clear / complete, the writing of the act is abbreviated or using symbols and writings of doctors who can not be read by the officer. Thus making it difficult for code officers when coding and may lead to claim errors.

According to the results of a previous study (Priyadi, 2021) entitled "Review of the accuracy of the action Codefication of inpatient surgical cases in 2019 Gugun Priyadi" that the researcher took a summary sheet of inpatients in and out of both general and BPJS as many as 100 medical records of surgical cases found the accuracy of the action code as much as 30 (30%) accurate and found medical record files as much as 70 (70%) inaccurate. Factors that cause code inaccuracies include the lack of number of coders in Majalengka Regional Hospital, the difficulty of coders reading writing and abbreviations assisted by doctors.

Another researcher conducted (Sari, 2019) entitled "accuracy of determining the Code of surgical actions using ICD-9 CM at Yogyakarta Primary Hospital" that the researcher took the medical record documents of the surgical ward in April 2019 as many as 90 files. The percentage level of accuracy of the Action Coding is still not good because as much as 10% (9 medical record files), the percentage of exact but incomplete is 80% (72 medical record files). There are 2 factors of inaccuracy of the surgical case, namely the known factors of difficulty reading the doctor's Writing by medical records and not medical personnel background, from the nurse factor, namely the difficulty in synchronizing between actions with ICD-9CM.

Lubuk Basung hospital has not implemented electronic medical records (RME) and has 7 wards, including internal medicine, neurology, surgery, pediatric, Obstetrics, Orthopedics and pulmonary wards. Based on the data the researchers obtained from the 7 wards from October to December 2023, the number of data on patients who performed procedures in the internal medicine ward was 116, Neurology was 53, surgery was 156, children were 65, Obstetrics was 39, Orthopedics was 35, from the results of these data, the surgical ward patients performed the most actions of 156 patients. The action that is often done in Lubuk Basung hospital is Excision



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Debridement of Wound, Infection, or Burn with ICD-9 CM action Code of 86.22. based on the results of an interview with the head of medical records, bangsa Surga has problems regarding the completeness of writing and clarity of writing patient medical actions, this also affects the accuracy of medical tidnakan codefication than some other wards.

Based on the results of the initial survey conducted by the author in Lubuk Basung hospital, the author took 10 rice medical records randomly to see the completeness and clarity of writing in the accuracy of the code of conduct. Of the 10 medical record files, 5 (50%) were complete and 5 (50%) were incomplete. Of the 10 medical record files, 4 (40%) were clear and 6 (60%) were unclear. The accuracy of the action code is 6 (60%) correct and 4 (40%) incorrect medical action Code. Of the 10 medical record files studied related to all surgical patients, there were inaccuracies in the patient's medical procedure code, incompleteness in writing the Procedure Code and vagueness of the medical procedure code that was not read by the researcher. Based on the description of the above problems, researchers examined the " picture of the completeness and clarity of the writing of Medical actions in the accuracy of the Code of action in the surgical ward at Lubuk Basung hospital".

METHODS

This study is a quantitative research with descriptive method approach that aims to provide an objective description of the variables studied without manipulation of the subject. The study was conducted at Lubuk Basung Hospital, focusing on the medical records of patients who came from the surgical ward. The population in this study consisted of 155 patient medical records. Of these, as many as 61 files were sampled by using accidental sampling technique, which is a sampling technique based on anyone who is available and can be reached at the time of the study.

Data collection was conducted through direct observation of the contents of medical records using an instrument in the form of a checklist table that has been compiled based on research indicators. The data processing process is carried out through several stages, namely editing (checking the completeness and consistency of data), coding (coding the data obtained), processing (processing data using computer software), and cleaning (cleaning data from errors or duplicate data). Data analysis was carried out in a univariate manner to describe the frequency and percentage distribution of each variable studied. This approach allows the researcher to evaluate the actual condition regarding the completeness, clarity, and accuracy of the code in the medical record thoroughly and systematically.



RESULTS

1. Completeness of Writing Medical Actions Inpatient Surgery Ward Cases in Lubuk Basung Hospital

Based on the results of observations through the checklist table that researchers did to 61 files of medical records of hospitalized patients in the surgical ward, then obtained the percentage of completeness of writing medical actions on medical records can be seen as follows :

Table 1. Frequency Distribution Completeness of the Writing of Medical Acts Inpatient Surgical Ward Case

Completeness of Writing A Medical Act	<i>f</i>	%
Incomplete	39	63.9
Complete	22	36.1
Total	61	100

Based on Table 1, out of 61 medical record files, there are more than half of 39 (63.9%) incompleteness in the writing of medical acts and only 22 (36.1%) complete writing of medical acts in accordance with ICD-9 CM. The results of observations obtained by the researchers, the most complete medical action writing is Removal of Implant while the most incomplete medical action writing is Excisional Debridement.

2. Clarity of Writing Medical Actions Inpatient Bagsal Surgery Cases in Lubuk Basung Hospital

Based on the results of observations through the checklist table that researchers did to 61 files of medical records of inpatients in the surgical ward, then obtained the percentage of clarity of writing medical actions on medical records can be seen as follows :

Table 2. Frequency Distribution of Clarity of Writing Medical Acts Inpatient Surgical Ward Case

Clarity of Writing Medical Acts	<i>f</i>	%
Not Clear	30	49.2
Clear	31	50.8
Total	61	100

Based on Table 2, out of 61 medical record files, there are less than half of 30 (49.2%) unclear in writing medical acts and 31 (50.8%) medical records that are clearly stated in accordance with ICD 9-CM. The results of the observations obtained by the researchers, the most obvious medical action writing is ORIF while the unclear medical action writing is Excisional Debridement.



3. Accuracy of Coding of Inpatient Medical Measures in the Case of Surgical Wards in Lubuk Basung Hospital

Based on the results of observations through the checklist table that the researchers conducted on 61 files of medical records of inpatients in the surgical ward, the percentage of accuracy of medical action codes on medical records can be seen as follows :

Table 3. Frequency Distribution of Medical Action Coding Precision Inpatient Surgical Ward

Case		
Accuracy of Coding of Medical Measures	<i>f</i>	%
Not Exactly	32	52.5
Exact	29	47.5
Total	61	100

Based on Table 3, out of 61 medical record files, more than half—32 files (52.5%)—had inaccurate medical procedure coding, while fewer than half—29 files (47.5%)—were coded accurately according to ICD-9-CM standards. The researcher’s observations found that the most frequently accurate code used was 86.22, corresponding to the medical procedure Excisional Debridement of Wound, Infections, or Burn. Conversely, the most frequently inaccurate code was 18.09, which refers to the procedure Incision of External Ear.

DISCUSSION

1. Completeness of Writing Medical Actions Inpatient Surgery Ward in Lubuk Basung Hospital

The results obtained, that of the 61 medical records of surgical cases there are more than half of 39 (63.9%) are incomplete in the writing of medical actions and there are 22 (36.1%) are complete writing of medical actions.

The results of this study are different from the study (Wulandari, 2023) entitled “Review of the completeness of documents for inpatient medical records of surgical cases in the accuracy of the Diagnosis code at RSI Siti Rahmah”. Where the results obtained showed that 50 (55.6%) incomplete medical records and 50 (55.4%) are complete. This is because doctors are too busy to write in a hurry and then also use abbreviations that are not in accordance with ICD – 9CM.

The results of another study conducted by (Hidayanti et al., 2021) entitled “Review of the completeness of the approval of medical measures for surgical cases at RSAL Dr. Mintohardjo Central Jakarta”, the results of the study showed that 90 medical records showed completeness of 63 (70%) complete writing and 27 (30%) incomplete writing of medical records. This is due to the negligence of the DPJP does not fill in the blank information and does not complete the contents of the missing information back in the documentation writing after the patient has finished receiving services, as well as differences in actions performed on the patient.



Completeness of writing a diagnosis on a medical resume is a crucial component in the documentation of a patient's medical record. The medical Resume serves as the main communication tool between medical personnel, both in a hospital setting and when patients receive follow-up services at other health facilities. The information contained in it should reflect the patient's clinical condition as a whole, from the initial diagnosis, the results of the examination, the measures taken, to the final diagnosis. Incomplete writing can lead to misinterpretation or even mishandling when the patient returns for treatment in the future.

A fully and correctly written diagnosis on a medical resume also reflects a good level of clinical understanding of the medical personnel of the patient's condition. When a doctor writes a clear and detailed diagnosis, it makes it easier for other doctors to continue or evaluate the treatment that has been given. Conversely, if the writing of the diagnosis is general, not detailed, or contains ambiguity, it will make it difficult to determine the next therapy plan, and can even pose a risk to patient safety. Therefore, the completeness of writing a diagnosis is not just an administrative formality, but part of an effort to maintain the quality and continuity of medical services.

Apart from being a clinical reference, the completeness of writing a diagnosis also has an important role in the medical coding process. Coders rely heavily on the clarity and specificity of information in medical resumes to accurately assign disease codes according to classification systems such as ICD-10. Writing a complete, specific, and appropriate medical terminology diagnosis will simplify the coding process and improve the accuracy of the reported data. This has a direct impact on the statistical validity of hospitals, financing claims to insurers, as well as the analysis of the quality of health services. Thus, good collaboration between medical personnel and medical records officers is key in creating high-quality documentation (Salehudin et al., 2021).

According to the analysis of researchers completeness of medical action writing surgical cases is still high 39 (63.9%) incompleteness of medical action writing on medical resumes in surgical wards occurs because the action/ procedure is not written completely, due to the writing of doctors in a hurry, lack of accuracy of medical personnel in treating patients in completing medical resumes. This has an impact on the quality of the medical record file on the results of the necessary information is not filled in completely. Based on the results of research conducted by the researchers, the medical act of writing is complete in the surgical ward at Lubuk Basung hospital, namely removal of implants, while the medical act of writing is incomplete, namely excisional debridement. It is recommended that medical personnel write a complete medical action so as not to disrupt the communication process between medical personnel so that it does not affect the quality of the hospital due to incompleteness in writing medical actions and efforts to evaluate in completing the medical resume.



2. Clarity of Writing Medical Actions of Inpatients in the Surgical Ward at Lubuk Basung Hospital

The results of the study showed that of the 61 medical records of surgical cases, there were 30 (49.2%) unclear medical records and 31 (50.8%) clear medical records based on ICD-9cm .

The results of this study are different from the study (Olivia Jassika Rahmadahni, 2022) that of the 7 Medical Record files, there are 16 (22.9%) unclear medical action writings in accordance with ICD-9cm and 54 (77.1%) clear medical action writings in accordance with ICD-9cm. Such vagueness is due to the fact that the writing of medical acts is difficult to read and uses terminological spelling language that does not fit ICD-9CM.

According to the regulation of the Minister of health of the Republic of Indonesia number 129 of 2008, medical records must be made in writing, complete, and clear, both in physical and electronic form. Article 3 of the regulation specifically states that one of the important components that must be included in the medical record is the patient's diagnosis. As a medical record maker, the doctor has the responsibility to establish the diagnosis clearly and accurately so that the recorded information can be well understood by other interested medical personnel.

The establishment of a clear diagnosis is not only important for clinical purposes, but also plays a role in the medical coding process. A diagnosis that is difficult to read or incomplete has the potential to cause inaccuracies in the provision of diagnosis codes. This will have an impact on the validity of medical data and hospital administration, and may interfere with the process of insurance claims and analysis of Health Statistics. Therefore, the clarity and completeness of writing a diagnosis in a medical record is a very vital aspect to maintain the quality of medical documentation and support the accuracy of coding which is the basis for decision making in health services.

The writing of the diagnosis on the medical record must be carried out clearly and completely, since the quality of the coding largely depends on the clarity of the doctor's writing as well as the professionalism of both the doctor and the coding officer. An unclear or ambiguous Diagnosis can lead to errors in the determination of the code, which ultimately affects the validity of medical data and the administration of the hospital. Therefore, before coding, the coding officer should communicate directly with the doctor who gave the diagnosis if there is unclear or confusing information. This clarification process is important to ensure that the code provided is in accordance with the patient's clinical condition and applicable classification standards, resulting in accurate and accountable data.

According to the analysis of researchers, the causes that affect the vagueness of writing medical actions in surgical cases are because doctors write medical actions with continuous writing so that this makes it difficult for researchers to read the actions given by doctors. Therefore, to reduce the vagueness of writing medical actions on medical records, coding officers should confirm back to the doctor in charge to find out the clarity of writing actions and provide



socialization to health care providers such as doctors, nurses, and other health workers regarding the importance of writing clear, correct, and precise medical actions on medical records.

3. Accuracy of Coding of Inpatient Medical Measures in the Surgical Ward at Lubuk Basung Hospital

The results obtained by the researchers that from 61 files of medical records of surgical ward cases there are 32 (52.5%) that are not appropriate coding of medical actions and 29 (47.5%) are appropriate coding of medical actions based on ICD-9CM.

The results of this study are different from the study (Sari, 2019) entitled “accuracy of determining the Code of surgical procedures using ICD-9 CM in Yogyakarta Primary Hospital”. The results obtained 90 medical record files, found 9 (10%) inappropriate code of action and 72 (80%) appropriate code of action.

The results of this study are different from the study (Putri, 2023), which obtained 88 medical record files, found 36 (40.9%) inappropriate medical action codes and as many as 52 (59.1%) appropriate action codes. The inaccuracy of the action code is due to the illegible writing of the action and the lack of accuracy of the coder when determining the code.

Accuracy in providing medical action codes is an important thing that must be considered by medical recording personnel. The quality of coded data is important to Health Information Management personnel. The accuracy of medical action data is crucial in the field of clinical data management, billing back costs, along with other matters related to care and health services.

According to the results of the researchers, the high inaccuracy of coding medical actions surgical ward is still high at 32 (52.5%) due to the incomplete writing of doctors and medical actions that write unreadable by researchers resulting in errors in coding by medical records officers in setting the coding. In order for the responsible code officer to maintain the accuracy of the action Code, the officer must quickly correct the action code correctly so that no errors occur again.

CONCLUSIONS

The results of a study conducted at Lubuk Basung hospital in 2024 show that there are several problems related to the documentation of medical actions in medical records in the surgical ward. Based on the analysis of 61 files of medical records, it was found that the completeness of the writing of medical acts is still relatively low. A total of 39 files (63.9%) showed incompleteness in the writing of medical acts, while only 22 files (36.1%) were recorded as complete. In terms of clarity of writing, the results showed that almost half or as many as 30 files (49.2%) were not clearly written, while 31 files (50.8%) were clearly written and in accordance with the ICD-9-CM Classification Standard.

Furthermore, the accuracy of coding medical measures is also still a problem. It is known that 32 files (52.5%) contain incorrect codes of medical actions, while only 29 files (47.5%) have



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been correctly encoded according to the ICD-9-CM classification. These findings indicate that the quality of medical documentation, both in terms of completeness, clarity, and accuracy of the code of medical measures, still needs to be improved in order to produce accurate data and support effective health services.

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