

Factors Causing Incorrect External Cause Code In Accident Cases In General Hospital Mitra Medika In 2022

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ABSTRACT

The external cause code is the code used to classify the external causes of a disease whether caused by accidents, injuries, burns, poisoning, side effects or other causes. The purpose of this study is to find out what are the factors causing the inaccuracy of the external cause code in accident cases at Mitra Medika General Hospital and how the procedure for coding the external cause code is carried out at the hospital. The type of research used is quantitative. The number of samples in this study were 4 coder officers and 32 medical record file forms with a percentage of 25% incomplete and 75% completely filled out. SOPs for disease codes and actions already exist, however, there is still no SOP for external cause cases in detail. Coding is carried out by coding officers with a background in D3 Medical Records who are guided by SOPs using ICD-10 of 2010 electronically and then entered into the INA-CBGs. The method of coding is done by first looking at ICD-10 Volume 3 and then confirming again on ICD-10 Volume 1. Chronological information on external cause events can be seen on the emergency assessment sheets, CPPT, and resumes of discharged patients. The cause of the inaccuracy of the code on the emergency assessment sheet had not been clearly written down on the chronology of events and blank sheets were still found. For encoding, it has reached the 5th character.

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1. INTRODUCTION

Hospitals are health service institutions that provide complete individual health services that provide inpatient, outpatient, and emergency services (Permenkes No. 3 of 2020). The implementation of good health services is reflected in the completeness of the contents of medical record documents.

The medical record is a record that contains the patient's identity, examination results, treatment, actions and other services provided to the patient and is a file that is so important for all health care institutions. (Sudra, 2017).

Coding is a fairly important function in health information services. Coded clinical data is needed to retrieve information for the benefit of patient care, research, service performance improvement, resource planning and management and to obtain appropriate reimbursement for the health services provided. The current payment system relies heavily on coded data to determine the amount of repayment, as well as determine the medical necessity of a health service (Oktamianiza, 2019)

Based on data from the Korlantas Polri for 2021 published by the Ministry of Transportation, the number of traffic accidents in Indonesia will reach 103,645 cases in 2021. This number is higher than the 2020 data of 100,028 cases. Traffic accident cases in 2021 have killed 25,266 victims with material losses reaching IDR 246 billion. Meanwhile, the number of seriously injured victims from traffic accidents last year was 10,553 people, and 117,913 people with minor injuries. Based on the type of vehicle, motorcycles were the most involved in traffic accidents with a percentage of 73%. The second order is freight transportation with a percentage of 12% (Korlantas Polri, 2021)

The Medan Polrestabes recorded 1,329 traffic accidents in the city of Medan throughout 2021. From these incidents, 197 of them died. Then for victims who are seriously injured in 2021, there are

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as many as 720 people. Meanwhile, material losses for 2021 are around 2.6 billion. (Polrestabas Medan, 2021)

External cause, namely the code used to classify external causes of a disease, whether caused by accidents, injuries, burns, poisoning, side effects or other causes. (Ariska Fajar Utami, 2018).

Kode external cause (V01-Y89) harus digunakan sebagai kode primer kondisi tunggal dan tabulasi penyebab kematian (Underlying cause) dan pada kondisi yang dapat diklasifikasikan ke bab XIX (injury, poisoning, and certain other consequences of external cause). (Oktamianiza, 2020).

Based on research conducted by (Hibatiwwafiroh, 2017) with the title "Accuracy and Conformity of the External Cause Code for Motorcycle Accident Cases Based on ICD-10 at PKU Muhammadiyah Hospital Gamping Sleman Yogyakarta". The conformity level of the external cause code in the medical record file with SIMRS (Category A) is 64%, while the discrepancy (Category B) is 5%. The level of accuracy of the external cause code up to character 5 (Category C) is 0%, while the external cause code is not correct on the 2nd to 5th character (Category E) of 56%. So it can be concluded that the factors that influence the inaccuracy of the external cause code are that there is no information on the activity description at the time of the accident on the triage form and SIMRS does not facilitate coding up to the 5th character.

Research conducted by Ikhwan, 2016 with the title "Review of the Accuracy of Diagnostic Codes of Injury and External Causes of Inpatient Inpatients at Siti Hajar Mataram Islamic Hospital". The results showed that 3 codes were inaccurate and 47 codes were inaccurate and 41 codes for external causes of injury were not written down and 9 diagnoses of injuries in the medical record file were not written for external causes. So it can be concluded that the factor of inaccuracy of the injury diagnosis code on the patient admission and discharge summary form consists of incorrect selection of blocks, sub blocks and errors in the 4th and 5th digits.

Based on an initial survey conducted with medical record officers in the coding section at Mitra Medika General Hospital, it was found that external cause code inaccuracies in accident cases were caused by human resource factors such as lack of clarity on the causes of patient accident injuries, and unclear doctor's diagnosis writing so that coders must be responsive to ask again the doctor who wrote the diagnosis of the patient's medical record file. SOPs for disease codes and actions already exist, however, there is still no detailed SOP for external cause cases.

2. METHOD

This type of research used is a qualitative method. Qualitative research is a method used to examine natural object conditions where the researcher is a key instrument, data collection techniques are carried out in a triangulation (combined) manner, data analysis is inductive, and the results of qualitative research emphasize meaning rather than generalization (Sugiyono, 2018).

This research was conducted at Mitra Medika General Hospital in the medical record installation in the coding section which is located at JL. K.L Yos Sudarso Km 7.5 Kel. Tanjung Mulia Medan Deli. The population in this study were 3 coder officers consisting of 1 outpatient coding officer, 1 inpatient coding officer, and 1 emergency room coding officer and 32 patient medical record files in February-April 2022 at Mitra Medika General Hospital.

The sampling technique in this study is total sampling. Total sampling is a sampling technique where the number of samples is equal to the total population which is less than 100. So, the number of samples in this study were 3 coder officers and 32 medical record file forms for patients at Mitra Medika General Hospital.

3. RESULTS AND DISCUSSION

Results of Accuracy of External Cause Diagnostic Codes in Accident Cases at Mitra Medika General Hospital

Of the 32 samples studied to see the accuracy of the external cause diagnosis code in accident cases, the following results were obtained.

Table 1 Results of Accuracy of External Cause Diagnostic Codes in Accident Cases

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Information	Amount	Percentage
Not exactly	8	25 %
Appropriate	24	75%

Results of Interviews and Observations Checklist Sheets Conducted at Mitra Medika General Hospital

- 1) How is the code for external cause cases at Mitra Medika General Hospital?
 - Informant A: External cause case coding:
 - a) Determine the cause of the accident, the place of the accident and the chronology of the accident
 - b) Determine the diagnosis code on ICD-10 Volume 3 electronically
 - c) Verify it back on ICD-10 Volume 1
 - Informant B: External cause case coding:
 - a) First look at the cause of the accident on the resume and the main diagnosis
 - b) Keep looking on the electronic ICD for the accident code
 - c) Just look for the disease code that causes the fall (the injury)
 - Informant C: External cause case coding:
 - a) Determine the leadterm of the cause of the accident, the place of the accident and the chronology of the accident
 - b) Determine which body is affected by the injury
 - c) Determine the diagnosis code on ICD 10 from ICD Online
 - d) Verify it again in ICD 10 Volume 1
- 2) Is coding done using electronic or manual ICD?
 - Informant A: for coding we have used an electronic ICD which was then entered into the INA-CBGs application
 - Informant B: For coding we are already electronic
 - Informant C: We do the coding electronically by typing in the disease diagnosis in the application
- 3) Is there a special SOP/SK regarding the coding of external cause codes?
 - Informant A: "For Standard Operating Procedures (SOP) our disease codes and actions already exist but for Standard Operating Procedures (SOP) external causes there are still none, and sorry we cannot give permission for you to attach the contents of our Standard Operating Procedures (SOP) ok deck...."
 - Informant B: No one has yet discussed the SOP in detail on how to code external causes, but for the coding of diagnoses and actions, we already have SOPs, and they are appropriate.
 - Informant C: The SOP already exists to provide the diagnosis code and the action, but there is no external cause to discuss.
- 4) Have you attended any training/seminar related to coding external causes?
 - Informants A, B, and C: I have never had seminars and training
- 5) If a code search has been carried out on ICD Volume 3, is it confirmed that it will return to ICD-10 Volume 1?
 - Informant A: Yes, confirmed again
 - Informant B: Yes, confirmed again
 - Informant C: Yes, confirmed again
- 6) Has the coding at the General Hospital been done up to the 5th character?
 - Informants A, B, C : Yes, we have done it up to the 5th character
- 7) After the diagnosis is coded, on what sheet is the diagnosis code found written?
 - Informant A: Written in pencil on a resume sheet
 - Informant B: Write the code directly on the resume, but use a pencil
 - Informant C: Using a pencil on the patient's resume sheet

- 8) In the RM document, has the doctor written down the complete chronology of the incident of the accident patient?

Informant A: Sometimes it is still found that incomplete chronology of patient events is written in the patient's medical record file

Informant B: there are still things that are not completely filled in

Informant C: For the emergency room case, there is still a complete chronology of events that has not been written down, for example with whom he had an accident and where the accident occurred

- 9) What are the causes of incomplete filling of the external cause code in the patient's medical record document?

Informant A: The lack of attention from the health worker who wrote down the diagnosis of the chronology of events in the assessment so that blank sheets were found and sometimes the writing was not clearly legible, this would hinder informancoding to determine the patient's diagnosis code.

Informant B: There is no cause of the accident (eg with what accident, where) in the chronology of events

Informant C: Sometimes the chronology is not completely written

- 10) What will the coder do if he finds unclear writing on the document that hinders coding the patient's diagnosis?

Informant A: If there is writing that is illegible, then ask directly to the one who wrote down the medical record file

Informant B: Usually when coding for hospitalization, I look again at the written diagnosis on the SBar or CPPT, if it's still not clear, I'll ask the nurse or the doctor directly.

Table 2 Checklist Observation Sheet Procedure for Coding External Causes in Accident Cases

No	Observed Aspect	T	F
1	The coding officer has already coded according to the SPO/SK	√	
2	Coding officers have attended seminars/training related to external cause coding		√
3	Coding officers look for leadterms or keywords first	√	
4	Coding officers look at the cause of the fall	√	
5	The coding officer determines the choice of code for the diagnosis term listed in the medical record file on ICD-Volume 3 by paying attention to all orders	√	
6	Coding officers match the results of the diagnosis code in ICD-10 Volume 3 with those in ICD-Volume 1	√	
7	The coding officer writes the results of the diagnosis code on a resume sheet in the medical record document	√	
8	The coding officer has done the coding up to the 5th character	√	

Table 3. Observation of Doctor's Writing in Medical Record Files

No	Observed Aspect	Ya	Tidak
1	The doctor has not written down the complete and clear chronology of the patient's events	√	
2	Doctor's writing uses capital letters		√
3	Writing uses abbreviations	√	
4	The article uses medical terms	√	

The accuracy of the results of the diagnosis code obtained depends on the quality of each coding officer. Coding officers have different abilities and understandings. Likewise, the accuracy of the coding officer is also different. This can be a factor that causes the inaccuracy of the diagnosis code.

DISCUSSION

Procedure for Coding External Cause Diagnosis in Accident Cases at Mitra Medika General Hospital

Based on the results of research on procedures for coding external cause diagnoses at Mitra Medika General Hospital already using an electronic ICD. Coding is done by first determining the leadterm/keyword diagnosis. After the diagnosis keywords are found, the Officer looks at the cause of the accident, the accident place/chronology of the accident and sees which bodies were injured. Then the officer immediately looks for the disease diagnosis code in the coding application on ICD-10 Volume 3 and if it is found it checks again on ICD-10 Volume 1.

Based on the results of interviews with the coding officer and the head of the RM that the coding had been carried out in accordance with the Standard Operating Procedure (SOP) for the provision of diagnosis codes and actions that apply in the hospital. In the applicable Standard Operating Procedures (SOP), it is still not explained in detail about the procedure for coding external causes.

Accuracy of External Cause Diagnostic Codes in Accident Cases at Mitra Medika General Hospital

The percentage of inaccuracy of the external cause code in accident cases on the medical record form is as follows:

- a) Percentage of accuracy of external cause code

$$\frac{\text{Correct code result} \times 100 \%}{\text{Total number of documents}} \\ \frac{24}{32} \times 100 = 75 \%$$

- b) Percentage of inaccuracies in external cause codes

$$\frac{\text{Incorrect code result} \times 100 \%}{\text{Total number of documents}} \\ \frac{8}{32} \times 100 = 25 \%$$

Based on the results of an analysis of the accuracy of the external cause diagnosis code in accident cases, it can be seen from the percentage above that the percentage of accuracy of the code is still inaccurate. Of the 32 files, 8 (25%) were incorrect and 24 (75%) were correct.

Factors Affecting the Inaccuracy of Diagnostic Codes for External Causes in Accident Cases at Mitra Medika General Hospital

1. Human Resources (Man)

Based on the results of interviews with the coding officer at Mitra Medika General Hospital, the factors that caused the inaccuracy of the diagnosis code were officers who still had difficulty reading the doctor's writings in the medical record file because they found files that were still unclear and did not contain a chronology of the causes of the accident. The coding officer also has a D3 background in Medical Records but has never attended training/seminars regarding external cause codes in accident cases. This research is in line with Gishella Nur Fadhilah August 2021, factors that cause inaccuracies in external cause coding at the Air Force Hospital dr. M. Salamun is due to the labor factor. Based on the interviews that were completed by the researcher, the coder 1 stated that there were no factors causing the coding inaccuracy. The coder 2 stated the factors causing the coding inaccuracy, namely the high volume of work, the coder 2 coded 300 medical record files every day, making Officers 2 less thorough in reading the injury history.

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2. Materials

Based on the results of the research and interviews, it was found that on the emergency assessment sheet the doctor had not written it completely, making it difficult for officers to code. Usually, if it is coded as inpatient, the diagnosis can be seen on the SBar or CPPT. If it is still unclear, the officer will ask the nurse who is on duty in the room.

3. Machine

Based on the results of research on the coding process at Mitra Medika General Hospital, for coding the diagnosis has been done electronically or computerized which is entered into the INA-CBGs application up to the 5th character

4. Method

Based on the results of research on Standard Operating Procedures (SOP) at Mitra Medika General Hospital, there are already Standard Operating Procedures (SOP) regarding coding of diagnoses, but there is no detailed explanation regarding coding of diagnoses for external cause codes in accident cases. Standard Operating Procedures (SOP) have a major influence on the success of health service delivery. Inappropriate Standard Operating Procedures (SOP) will result in huge losses because they will lead to errors in health services

Observation Results of the External Cause Code Checklist Sheet at Mitra Medika General Hospital

Based on table 2, it is found that filling in the external cause code has been carried out in accordance with the SOP for giving the diagnosis code and procedures in the hospital, but there is no SOP that regulates the external cause code in detail. Coding officers also have never attended seminars/training related to external cause coding.

Based on table 3, it was found that filling in the external cause code was still constrained, there were still empty files that had not been filled in completely and the doctor's writings were still unclear, and the writing did not use capital letters and still used abbreviations and medical terms that were difficult for the coding officer to understand.

4. CONCLUSION

Based on the results of research conducted at Mitra Medika General Hospital in the coding section, it can be concluded that Diagnostic coding has been carried out by officers with an educational background of D3 Medical Records by carrying out electronic coding which is entered into the INA-CBGs application and has been guided by Standard Operating Procedures (SOP) regarding the provision of diagnosis codes and actions and the results of the accuracy of the diagnosis of external causes found that from 32 files there were 8 (25%) files that were not correct because the officers had difficulty reading the writing on the medical record files. There were 24 (75%) files that were complete and the diagnosis code was written correctly.

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