

The Development of Pocketbook Coding to Improve The Accuracy of Disease Diagnoses Coding Based On Icd-10 In Kendalsari Primary Health Center Malang

Bernadus Rudy Sunindya¹, Kharisma Ayu Dayanti², Budi Susatia³

^{1,2} Program Diploma III of Medical Record and Health Information Poltekkes Malang

³Program Diploma III of Nursing Poltekkes Malang

Abstract: *One of the Primary Health Center (PHC) activities is coding of patient's illness diagnoses. The assignment of ICD 10 in coding practice at the PHC is still highly inaccurate. This contributed to the inaccuracy of reporting and mapping the distribution of the disease in the PHC region). This study aimed to determine whether there is a difference of coding accuracy of diagnosing the disease before and after implementation of the use of a pocketbook incoding. By the development of a coding pocketbook, it is expected that coding process at the health center to be more accurate. This was conducted in PHC Kendalsari Malang, East Java using observation sheets and ICD-10 book. The total sample was 72 from medical record outpatients file. The data collected was the percentage of accurately coded illness diagnoses before and after implementation of coding pocket book, then statistical tests performed using the Z test (Z test) with an alpha of 0.05. Accurate coding before using coding pocket book 51%, while after using coding books increased to 90%. The statistical test results showed that p value less than 0.05, which means that Ho (hypothesis null) refused and it can be concluded that there was statistically differences between the proportion of accurately coded illness diagnose before and after implementation of the use of coding pocket book. Therefore, coding pocketbook in health center Kendalsari can be an alternative of assistance in performing more accurate diagnosis coding of the disease.*

Keywords: ICD10, coding, pocketbook, PHC

1. Preliminary

A. Background

Generally, Medical Record is defined as either written statement or recorded on the identity, anamnesis, physical determination of the laboratory, diagnosis of all services and medical treatment given to the patient, and Good treatment is inpatient, outpatient, and the gain emergency services (Directorate General of Medical Services (2006)). Meanwhile, according to PERMENKES 269 / Menkes / Per / III / 2008, article 1, paragraph 1 Medical Record is a file that contains records and documents about the identity of the patient, examination, treatment, actions and services that have been provided to patient. Medical records are a process that codification a customized disease diagnosis coding based on ICD- 10. According to the MOH and DIRJEN Yanmed (2006: 59) coding is Award-setting code by using letters or numbers or a combination of letters in the figures has a component data. According to Kepmenkes No. 50 / Menkes / SK / I / 1998 on Classification Enforcement Statistics Regarding international Tenth Revision disease has been established. Regarding the implementation of the International Classification of Diseases Tenth Revision (ICD-10) nationally in Indonesia, as well as according Kepmenkes No. 844 / Menkes / SK / KENDALSARI / 2006 on the Application of Standards Code Data Health Affairs and International Statistical Classification Of Diseases And Related Health Problems (ICD-10) is a reference used in Indonesia to encode the diagnosis of disease, these provisions also treated for all health care facilities, including all Health centers in Indonesia. The coding activities have also been initiated by all Puskesmas in the city of Malang,

but unfortunately the lack of specialized personnel who responsible for encoding in health centers that have a background educational background in medical records. Codification process in Puskesmas does by doctors, nurses and even sometimes the clerk place of registration of patients just relying on electronic applications only. In addition to the determination and writing code in accordance with the diagnosis of the disease has not naming systems ICD-10. From the research ever undertaken by Niko Saputra and Nuryati in Mojolaban Health Center of West Java in 2015 showed that their imprecision disease diagnosis code of 379 patients in primary health code there are 43 disease diagnosis disease diagnosis code is not right. The some of the factors that cause the disease because of inaccuracies codification incomplete code is available and the medical terms used in SIMPUS database as well as the absence of guide books to carry out activities codification. Another study conducted by Mega Fibrinsari (2015) in PHC Buluspesantren II shows that the writing of diagnosis which is not in accordance with the naming system ICD-10 diagnosis given doctors and uses terms that are not standard and using abbreviations known only to the doctors themselves so that the coding clerk in PHC does not understand even not readable at all the diagnostic written by doctors. Preliminary study that researchers do in one Health Center Malang in February 2015, showed inaccuracies officer Puskesmas in disease diagnosis codes for patients based on ICD-10. Based on the above background, the researchers are interested in creating a book coding and implement it in their pocket improves the precision Award codification disease diagnosis so that researchers want to investigate about "Implementation Use of Books Sak u

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Coding to Improve Accuracy Codification Disease Diagnosis Based on ICD-10 in Puskesmas Kendalsari "

2. Research Question

Is the use of the Handbook Coding can improve the percentage of accuracy in the diagnosis of disease codification based on ICD-10 in Puskesmas Kendalsari?

Objectives

The purpose of this study was to determine the percentage of accuracy codification diagnose the disease before and after implementation of use pocket coding book at the Kendalsari primary health center. Determine the percentage of accuracy of disease diagnosis based codification After the implementation of ICD-10 coding using a pocket book in health center Kendalsari Analyze the statistical difference in the percentage of accuracy codification disease diagnosis based on ICD-10 before and after implementation the use of a pocket book in Kendalsari health center

3. Research Methods

3.1 Design Research

The study design in this research was pre experiment one group pretest posttest. The method used is a quantitative approach, quantitative approach in this study

Codification percentage accuracy for diagnosis of disease based on ICD- 10 before and after the implementation of the use of a pocket book at Kendalsari the health center.

Based on the conceptual framework variables in this study codification is the accuracy of diagnosing the disease before and after Implementation of Use Handbook Coding

The population of this research is the patient's entire medical record file outpatient who had been given a diagnosis during codification research took place in Kendalsari the health center. The sampling technique was Quota Sampling i.e., researchers took a sample of 72 outpatient medical record file when the study took place at Kendalsari health center and then the accuracy was compared between before an after the usage of coding pocketbook.

In the study, data collection needed tools and good way of collecting good data so that the data is valid, reliable (reliable), and actual (Nursalam, 2008). Instrument in this research is used to determine the accuracy of the codification diagnose of the disease before and after implementation of use pocket book for coding the logbook sheets to writes the number of accuracy. As well as using the calculator used to perform calculations.

The types and sources of data in this study are primary data, ie data obtained through observations conducted by researchers codification the accuracy of the diagnosis of disease before and after conducted coding implementations use a pocket book by ICD- 10.

Data was collected through direct observation by using a logbook and a calculator to determine the accuracy of the

codification diagnose the disease before and after implementation use pocket book based on ICD-10 coding. The data collection was as much as 2 times. The first stage with observation codification direct result of disease diagnosis conducted before using coding pocket book as a guide in codification disease diagnosis assignment. The second stage of observation results back codification disease diagnosis by officers who have used the book as a guide pocket coding in granting codification disease diagnosis.

Data processing is performed in this study are as following:

Editing is checking or correction of the data that has been collected, in order to eliminate the errors contained in recording in the field and are corrected. Researchers conducted checking the results of observations about the accuracy of the diagnosis codification diseases before and after implementation of the use of a pocket book coding. Scoring is the result of research that was made in accordance with study criteria. Scoring in this study is the assessment of codification for the accuracy of disease diagnosis criteria as following:

Accurately with 4 digit code value of 3

Accurate to 3 digit code value 2

The code is not accurate value of 1

At this stage, the data collected was incorporated into one software statistics data base for later analysis.

This stage is an activity rechecking data already inserted to anticipate an error while entering data.

3.2 Data Analysis Techniques

Data analysis technique in this research was use the Z Test or often. Z Test is used to determine the difference of proportion codification accuracy of disease diagnosis before and after implementation of the use of coding pocket book. In this study the interpretation of results is by using the Z test program SPSS.

4. Research Ethics

1) Informed Consent

Informed consent is a consent form for researchers with respondents. Informed consent was given before the study was done by giving a consent form to open a medical record file. Interest Informed consent is that the respondent understands the intent and purpose researchers, and determine their impact.

2) Anonymity (no name)

To maintain the confidentiality of the data to be obtained, the researcher was not writing names in data collection sheets only provide the symbols on each data collection sheets.

3) Confidentiality (confidentiality)

All information gathered guaranteed confidentiality, only the group specific data that will be reported on the results of their search.

5. Results

Based on observations performed through three stages to encoding process and outcome of disease diagnosis accuracy

codification disease diagnosis revealed that the process of coding diagnoses the disease is not carried out by trained professionals but by a medical doctors, nurses and even front officers (place of registration of patients) also do it. Activity coding is done when the patient has been completed get services. The first phase of research conducted on 11 and 12 April 2016. Codification processed disease diagnostic with the help of officers generated code by the health center itself. Results of codification diagnosis done by clerks then are checked codification diagnosis disease with a guidebook ICD-10. From the results of the diagnosis codification diseases that officers done to 72 documents of medical records before implementation pocketbooks coding accuracy of the results obtained codification disease diagnosis as follows:

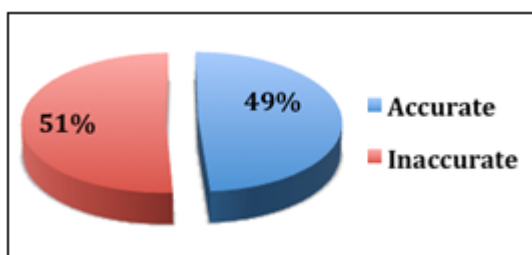


Figure 1: The Proportion of Accuracy in Coding before Implementation of Pocket book

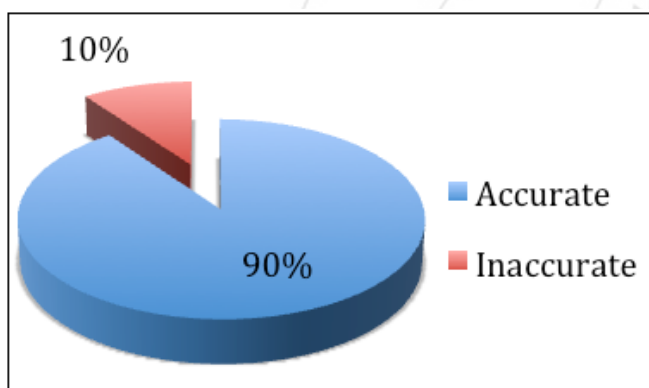


Figure 2: The Proportion of Accuracy in Coding after Implementation of Pocket book

As can be seen in the pie chart above, there is a big difference in term of accurate coding between before and after the implementation of pocket book. The statistical analysis using Z test showed the p value of 0.000 which means it was below α which is 0,05 so H_0 was rejected and there are significant difference in the accuracy of codification disease diagnosis before and after implementation pocketbook coding.

6. Discussion

This study was conducted to prove that the use of pocketbook coding in the process of diagnosing the disease in codification PHC Kendalsari could improve the accuracy of diagnosis codification disease. Handbook coding is one of the alternatives that could be applied to ensure that the reporting system and recording data in Puskesmas Kendalsari be better. From the calculation of the amount of the accuracy of disease diagnosis codification conducted by officers with a guide code created by puskesmas itself

obtained only 51% of the total sample document records medical, meaning almost half of the total number of sample documents said medical records are not accurate, meaning it can be said that the guide codification code to perform a diagnosis that is made by puskesmas not comply with the provision of standard diagnostics codification a disease that is on the ICD-10. 51% of the value of the accuracy of the diagnosis codification many diseases fault lies in giving less codification granting specific disease diagnosis such as patient samples. Acute pharyngitis with disease diagnosis with ICD codes J02.9 but most of the officers in conducting codification diagnosis of the disease in acute pharyngitis cases are J02. So this research provides guidebooks that are still modest but refers to ICD-10, this book is a paperback book coding. Before the pocket book coding used by officials, the use of pocket book coding was disseminated. This socialization was done so that the officers were required to fully understand how to use a pocket book coding. Four officers who perform diagnostics codification disease follow socialization. In proses of socialization pocket books coding personnel participating in the socialization were also active in asking questions about the use of coding pocket book which has been described by researchers. Results of codification disease diagnostics performed before officers attended the socialization of coding pocket book showed the percentage codification accuracy of disease diagnosis increased from 51 to 90%. The increase in the percentage indicating that socialization pocket book coding was going well, while 10% of medical record documents was innaccurate. The errors caused by lack of thoroughness officials codification diagnosis of the disease in taking decisions when encodes. From the analysis of the data by using the Z test show p value of . 0,000. P value smaller of the value of α of 0.05 means H_0 rejected so that there was a significant proportion difference between before and after use coding pocket book on the process of granting code the efficacy of diagnosis. It showed from the test analysis that the use of a pocket book has an influence on the accuracy of coding codification diagnosis. So the use of coding on the pocket book codification process of diagnosing the disease at the Kendalsari health center can be a good alternative to the officer codification doctors, nurses and also TPP officer. Expectation after using coding pocket book the accuracy of the figures will rise and codification will certainly have an impact on the quality of patient care in Kendalsari health centers the better.

7. Conclusions and Recommendations

7.1 Conclusion

Percentage codification accuracy of disease diagnosis based on ICD-10 before the implementation of the use of a paperback book in health center coding Kendalsari was 51% Percentage codification accuracy of disease diagnosis based on ICD-10 after the implementation of the use of a paperback book in health center coding Kendalsari to 90%

Statistical analysis showed that the p value < 0.05 which means that H_0 rejected, which means there is a difference significant proportion between before and after the use of coding pocket book on the process of granting codification diagnosis.

7.2 Recommendation

Based on the results, that there was an increase of accuracy in codification diagnosis of the disease after the implementation of the use of a pocket book coding. Therefore pocketbook coding at the health center can Kendalsari an alternative assistance in doing codification diagnosis.

References

- [1] Abdelhak M., Grostick S., Hanken M. A., and Jacobs E. B. 2011. Health Information of A Strategic Resource 2nd Editon. Philadelphia: Sunders Company.
- [2] Ali Akbar Maghsoudlorad, Mahmoud Mobasheri, Parisa Lamoochi, Razieh Mirzaeian, Javad Sharifi-Rad. A survey on hospital patients coding accuracy in Ahvaz, Iran. IAIM, 2015; 2(2): 94-99.
- [3] Depkes RI. 1999. Pedoman Penggunaan ICD-10 Seri 1. Jakarta
- [4] Depkes RI. 2006. Pedoman Pengelolaan Rekam Medis Rumah Sakit Indonesia, Jakarta
- [5] DepkesRI. 1997. Pendekatan Kemasyarakatan. Jakarta : Depkes RI, Direktorat Bina
- [6] Peran Serta Masyarakat. Departemen Kesehatan RI. 1997.
- [7] Edna K.Huffman. 1994. Health Information Management, Edisi 10. Berwyn Illinois:Physician's record company
- [8] Hatta, G. R. 2008. Pedoman Manajemen Informasi Kesehatan Di Saranan Pelayanan Kesehatan Revisi Buku Petunjuk Teknis Penyelenggaraan Rekam
- [9] Keputusan Menteri Kesehatan. 2008. No. 269/MENKES/PER/III/2008 Tentang Rekam Medis. Jakarta
- [10] Manangka, F. R. 2008. Klasifikasi Statistik Internasional Tentang Penyakit Dan Masalah Kesehatan (ICD-10) Petunjuk Penggunaan ICD-10. Surabaya: K.P.R.I Dr. Soetomo
- [11] Medis atau Medical Record Rumah Sakit Di Indonesia. Jakarta : UI Press.
- [12] Mehrdad Farzandipour, Abbas Sheikhtaheri F. Sadough, Effective Factors On Accuracy of Principal Diagnosis Coding Based On International Classification Of Diseases, The 10th Revision (ICD-10), International Journal of Information Management 30 (2010) 78-84.
- [13] Mohammad Hosein Hayavi Haghighi, Mohammad Dehghani, Saeid Hoseini Teshizi and
- [14] Hamid Mahmoodi. Impact Of Documentation Errors On Accuracy Of Cause Of Death Coding In An Educational Hospital In Southern Iran. Health Information Management Journal Vol 43 No 2 2014 ISSN 1833-3583.
- [15] Sujarweni, V Wiratna, 2012. SPSS Untuk Paramedis. Yogyakarta:Gava Media.
- [16] World Health Organization. 2003. International Classification of Diseases and Related Health Problem. Geneva: WHO.