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IMPLEMENTATION OF POCKET BOOK FOR INTERNATIONAL CLASSIFICATION OF DISEASE DIAGNOSES AND TREATMENT CODING AT ARJUNO DENTAL HEALTH UNIT IN MALANG INDONESIA

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ABSTRACT

The dental medical record includes the codification of the disease's diagnosis and dental procedure that refer to ICD-10 and ICD-9CM. The purpose of this research is to know the accuracy of the code of dental disease diagnosis and dental procedure before and after using the Pocket Book ICD-10 and ICD-9-CM that was made for the interests of the Dental Clinic in Primary Health Care Of Arjuno. This research was pre experiment One Group Pretest Posttest, using a quantitative approach, before and after using the pocket book. The instrument in this research was the check list. The number of samples were 40 dental medical records. The developing of the Pocket Book cont ain especially the codes of the dental disease is with code K CM and ICD-9 coded for dental procedures. This Pocket Book is referred to patient's visit during the years 2015 to 2016; There were 28 diagnoses of dental diseases and 3 dental procedures; Then added by 35 diagnoses of dental diseases and 2 dental procedures that might be available in the Primary Health Care of Arjuno; So the Pocket Book contains 63 dental diagnoses and 5 dental procedures. The accuracy of the codification of dental diseases diagnoses before and after the implementation of the Pocket Book was 12.5% to become 85% accurate. The accuracy of the codification of dental procedures, before and after implementation of the Pocket Book was 0% to 52.5% accurate. The independent Z-test was obtained a value of Sig. 0.000 (<0.05), that there is a difference of dental procedures codification between before and after the implementation of the Pocket Book; With the increased accuracy of 73% for the codification of dental diagnoses' diseases and 52% for the codification of dental procedures.

KEYWORDS: Pocket ; Book, accuracy ; codification; dental.

I. INTRODUCTION

Regulation of the Minister of Health of the Republic of Indonesia Number 75 of 2014 concerning Public Health Centers, Article 1, paragraph 2 of Public Health Centers, hereinafter referred to as Puskesmas, is a health service facility that organizes public health efforts and individual health endeavors, prioritizing promotive and preventive efforts Achieving the highest degree of health in the workplace. In addition to serving promotive and preventive health centers also carry out the service in poly, where only poly ne s tooth. Every service at the health center are always recorded in the medical record, according Permenkes 269 of 2008 on medical records. Definition of medical record in article 1, paragraph 1 is a file containing records and documents on his identity, examination, treatment, action and other services that have been given to patients. The contents of the record and the record of the action a final diagnosis the patient is equipped with a coding (codification). Coding is one way that is capable of uniform data collection on individual patient's disease for the sake of certainty of accuracy, precision, punctuality and actions that will be used as input an information management system developed (Dragon in Saputro, 2015). Since 1993 the WHO requires member countries including Indonesia using the disease classification revision-10 *(International Statistical ClasificationDeseasses and Health Problems Tenth Revision)* (MOH, 2006). To codification measures, procedures and operations uses ICD-9cm. ICD function as a disease classification system and related problems Health is used for the purposes of information statisticulidity and mortality (Hatta, 2013: 134). Accuracy of codification corresponding ICD-10 and ICD-9-CM affect the validity of disease morbidity report dental and actions, so that codification processing delay effect on the delayed reporting of dental disease morbidity.

In a preliminary study in Puskesmas Arjuno (poly teeth), conducted in September 2016, codification diagnosis is performed by referring to a sheet of paper containing dental disease diagnosis codes up to three digits. it is not appropriate ICD-10; that the code of the disease up to the fourth digit. C ontoh: *periodontaldiseases* diagnosis coding codification officers are supposed K05.6 K05.   Of the 34 diagnosis codes that observed in the daily census of patients gear cases, 2 encoded up to four digits and 32 digits encoded up to three; s edangkan action / procedure In accordance with ICD-9-CM is not coded. That's why then created Handbook ICD - 10 and ICD - 9 - CM for dental unit in Puskesmas Arjuno.

Research purposes
The purpose of this study was to determine the accuracy of diagnosis and action codification of dental matters before and after the use of a pocket book ICD-10 and ICD-9-CM for dental unit visitor at Puskesmas Arjuno.

II.   METHODS
The research was using research design praeksperimen *one group pretest posttest,* using a quantitative approach. This study variables are pocket book ICD-10 and ICD-9-CM for dental outpatient.

Table 1. Variables

Variables	Operational definition	Measuring instrument	Measure Scale
Pocket book ICD-10 and ICD-9-CM to Poly Health Center Dental in Arjuno	Pocket book is created, in accordance with the guidelines for ICD-10 and ICD-9-CM (WHO) specialized dental disease and its actions K contains code (ICD-10), and the code Chapter V is 21-29 (ICD-9-CM); Which is used for Arjuno Puskesmas.		
Accuracy of diagnosis and dental action	It is precisely the accuracy of densifying the diagnosis of dental disease according to ICD-10 to the fourth digit and the codification of the action in accordance with ICD-9-CM. Accuracy score: Diagnose code is accurate: written 4 digits: value 1 Diagnosis code inaccurate / incorrect / not written: the value 0	Check list	Ratio

The study population was the entire medical record file outpatient health center at Arjuno in 2016 period In January , with the number of 474 cases of dental disease. The sample in this research was patient's medical record file poly existing teeth during March to May 2017. The primary data obtained by researchers through the observation of the results of the diagnosis of disease and codification actions / procedures in Arjuno dental health center. Secondary data in this study is the number of patient visits for one year of dental disease, and codification diagnosis and codification action / procedure on a patient's medical record documents. How to collect data through observation (observation). This research used data processing *Editing* for checking, *coding* medical record number changed to number 1, 2, 3, and so on. Score accuracy of code: if accurate diagnosis (with 4 digits) value of 1; inaccurate / not written / false, the value of 0. The data were processed with statistical tests.

Data analysis
Statistical data analysiswas done with independent Z Test *(independent Z-test)* by comparing the proportion of the accuracy of the diagnosis of dental disease and actions / procedures before and after the use of a pocket book ICD-10 and ICD-9-CM to Health Center Dental in Arjuno.

The hypothesis formulated is
H0: there is no difference in the accuracy of disease diagnosis and action codification cases of dental disease before and after the use of a pocket book ICD-10 and ICD-9-CM for poly teeth.

H1: the difference in the accuracy of disease diagnosis and action codification cases of dental disease before and after the use of a pocket book ICD-10 and ICD-9-CM for poly teeth.

Decision-making
If sig> 0.05 then H0 is accepted
If sig <0,05 then H0 is rejected

III.   RESULT

Arjuno Health Center was established in 1970 which is the oldest health center in Malang is located at Jl. Simpang Arjuno No. 17 A Malang, Kauman Village Klojen. This study was conducted in March and May 2017. The first phase of data collection yakit diagnosis and action pen Arjuno dental health centers, 2015 and 2016. The result of this:

Table 2. Summary of Treatment of Dental Health in 2015 and 2016 PHC Arjuno

No	Action	Number of cases		$\sum$	Rank
		2015	2016		
1	Tooth extraction	752	776	1528	1
2	Tooth filling	539	589	1128	2
3	Tooth Scaling	250	257	507	3

Based on the above table, the number of dental diagnosis there are 28 species and most are pulpitis. While the majority of dental disease action was tooth extraction. The accuracy of the diagnosis of dental disease codification conducted against 40 officers of medical record documents before the book's I ICD-10 and ICD-9cm as follows:

Table 3. Percentage Accuracy codification 3 Dental Disease Diagnosis Before Implementation Handbook

No	CodingDiagnosis	%	Number of documents
1	Accurate	12,5	5
2	Innacurate	87,5	35
total =		100	40

In Table 3 above indicates a diagnosis of dental disease in PHC Arjuno seb forgetting the use of a pocket book codification 12.5% accurate.

Table 4. Percent of Accuracy Dental Health treatment Before Implementation Handbook

No	Action Coding	%	$\sum$ Number of documents
1	Accurate	0	0
2	Inaccurate	100	40
Total =		100	40

Table 4shows no teeth in health centers codification action Arjuno or accuracy of 0%.

In this booklet entered all diagnoses (28 diagnoses) and action (3 treatment) are obtained from the data in 2015 and 2016. 35 diagnosis of diseases and 2 treatment may exist in health centers Arjuno; total amount of 63 dental disease diagnosis and treatment into five acts.

Then educate officers and treatment codification diagnosis of dental disease in PHC Arjuno ie dentists and dental nurses. Education was also given along with the practice of encoding using the pocket book. The next stage of observing and evaluating the patient's medical record document that has been done to implement the process codification pocket book.

Accuracy of codification diagnosis was about disease dental and treatment based on ICD-10 and ICD-9cm can be seen in the following table.

Table 5. Percentage Accuracy of Dental Disease Diagnosis After Implementation Handbook

No	Diagnosis Coding	%	$\sum$ Number of Documents
1	Accurate	85	34
2	Inaccurate	15	6
Jumlah =		100	40

Table 5 shows the value of the accuracy of disease codes with the implementation of a handbook by 85%.

Table 6. Percentage Treatment Accuracy After Implementation Handbook

No	Treatment Coding	%	$\sum$ Number of Documents
1	Accurate	52,5	21
2	Inaccurate	47,5	19
Jumlah =		100	40

Table 6 shows the percentage of treatment accuracy codification dental disease after implementing pocket handbook 52.5%

Analysis data using the Z test independently, by entering all the data codification diagnosis of dental disease before and after implementation of a paperback book; as well as by entering the action codification dental disease before and after implementation of a paperback book. The result of the calculation, as follows:

Table 7 Table Test Z Independent Dental Disease Diagnosis Coding

Implementation	N	Percentage	Independent Test Z
Before	40	12.5%	0,000
After	40	85%	

Table 8 Table Test Z Independent Dental disease treatment coding

Implementation	N	Percentage	Independent Test Z
Before	40	0%	0,000
After	40	52.5%	

From the results of the test table Z in Table 7 and 8, both showed 0,000 so that H0 rejected H1 accepted; meaning that there is a difference codification accuracy of disease diagnosis tooth and his actions; before and after using pocketbooks.

IV. DISCUSSION

Codification process of dental disease diagnosis and treatment in Puskesmas Arjuno done by a dentist or dental nurse using a sheet guide code list. Accuracy of diagnosis codification of dental disease before the implementation of the pocketbooks of 87.5%. inaccurate (Table 4.3). This inaccuracy is due by error coding and also their medical record documents that have not been coded, and officers do not have the code giver educational background medical records, and medical records have not received training. Prior to the implementation of the coding pocket book, d ari 40 medical records document 10 0% codification actions dental disease inaccurate (table 4.4.); because the officer did codification due to absence of the guidebook for codification action. The preparation of a handbook ICD-10 and ICD-9-CM for dental poly unbiased codification diagnosis and action by adding medical terminology and record coding, coding notes: *Exclude* NOS (Not Otherwise Specified). Pocket handbook consulted the coaches and coder to do the validation making it feasible to be used as a guide codification. Conducted education prior to the implementation of the pocket book. This educational process is followed by two officers who did codification in dental unit, then do the practice of members of diagnosis codes and actions; by using a pocket book. Accuracy measurement of The dental disease diagnosis performed after the implementation of the pocket book is 85% of the total sample of 40 medical record documents. This increase accuracy of codification dental disease from 12% to 85% after the use of a paperback book (an increase of 73%); and treatment of disease based on ICD-9cm from 0% to 52% accurate after the use of a paperback book (an increase of 52%). While 48% of the inaccurate codification is due to the lack of accuracy of the officer in recording the tooth treatment code. For example codification action for tooth extraction is 23:09, but the officer wrote 23.90 codification download documents. Analysis statistically using the Z test on the accuracy of the diagnosis and actions dental disease sig is 0,000. P values of significance <0.05 then H0 is rejected and H1 accepted, it means that there were differences of codification accuracy of disease diagnosis and treatment cases of dental disease before and after the use of a pocket book. Using pocket book provided more of accuracy.

V. CONCLUSION

There were differences in the proportion of the accuracy of diagnosis and treatment coding of dental disease between before and after implementation of a paperback book.

VI. SUGGESTION

Based on the results of the research, that there is an increase in the number of diagnostic codification accuracy and codification of treatment after the implementation of the use of pocket book diagnosis and action of dental cases. Therefore, pocket book diagnosis and action of dental case in Puskesmas Arjuno can be an alternative aid in conducting diagnosis and dental diagnosis

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