

Cost-Based Evaluation Of INA – CBG's Rates In Patients With Type II Diabetes Mellitus Inpatient At Royal Prima Public Hospital Medan

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Abstract.

RSU Royal Prima Medan applies the Indonesian Case Based Groups (INA-CBGs) system as a payment system for health services for JKN-BPJS patients. This study describes the implementation of the INA-CBGs system in inpatients with Type 2 Diabetes Mellitus. This research is descriptive research with a qualitative approach. The population of this study are people who play a role in calculating BPJS financing at RSU Royal Prima Medan. The sample used in this study amounted to 4 informants consisting of 1 informant in the BPJS patient register section, 1 Head informant in the BPJS financing calculation section, and 2 staff informants in the BPJS financing calculation section. Data analysis using the Triangulation method. The results showed that the majority of Type II DM patients at RSU Royal Prima Medan were > 50 years old, as many as 29 patients with a percentage of 85.3%, and 15 patients for male and 19 female patients. The implementation of the INA – CBG's system at RSU Royal Prima Medan for inpatients with Type II DM is in accordance with the procedure, the obstacles faced by officers such as when entering data where there are still many writings from doctors that are difficult to understand, the tariff for INA – CBG's packages for Type II DM patients Hospitalization at RSU Royal Prima Medan is adjusted to the patient's condition and to assess the success of implementing the INA – CBG's system at RSU Royal Prima Medan for inpatients with Type II DM as seen from the hospital's income where during the implementation of the INA-CBGs system the hospital did not experience losses, even hospital revenue exceeds the target to be achieved.

Keywords: INA-CBGs service payment system, JKN-BPJS and Type II Diabetes Mellitus.

I. INTRODUCTION

Diabetes mellitus if not handled properly can cause various complications in body organs such as eyes, kidneys, heart, blood vessels and nerves that will endanger life and affect a person's quality of life [1]. The number of people with diabetes mellitus in Indonesia reaches 10.3 million people and is expected to increase to 16.7 million people in 2045 [2]. The majority of DM sufferers are type 2 DM (90-95%) compared to type 1 DM (5-10%) [3]. Direct medical costs associated with diabetes include expenses for preventing and treating diabetes and its complications. This includes outpatient care, emergency and inpatient care, medicines and medical supplies such as syringes and other consumables as well as long-term care [4]. The economic burden of DM must be a concern of the implementation of the National Health Insurance (JKN) in managing chronic non-communicable disease problems. Estimating the cost of illness with the cost analysis method is an important element in the decision-making process for chronic diseases such as diabetes mellitus [5].

In order to overcome this, the government provides a policy by issuing JKN (Jaminan Kesehatan Nasional) [6]. This guarantee is in the form of health protection so that participants receive health care benefits and protection in meeting basic health needs [7]. In 2014, BPJS Kesehatan introduced Indonesian Case Based Groups (INA-CBGs) which replaced Indonesian Diagnosis Groups (INA-DRGs) [8]. The use of the INA-CBGs payment method is an opportunity as well as a challenge for every hospital in Indonesia [9]. The payment procedure uses the INA-CBG's system, both the hospital and the paying party no longer detail the bill based on the details of the services provided, but only by submitting the patient's exit diagnosis and the INA-CBG's code [10]. The researcher wants to conduct a study entitled INA-CBG's tariff-based cost analysis in patients with type II diabetes mellitus hospitalized at RSU Royal Prima Medan. From the description of the background above, the formulation of the problem in this study is how to apply the costs associated with inpatient treatment of type II DM patients at RSU Royal Prima based on INA - CBG's rates?

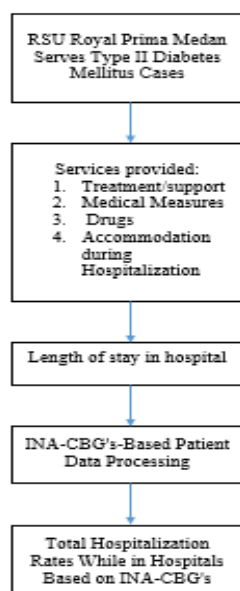


Fig 1. Research Concept Framework

II. METHODS

This research is descriptive research with a qualitative approach. The qualitative descriptive method is a research method based on the philosophy of postpositivism used to examine the condition of natural objects, where the researcher is the key instrument of data collection techniques carried out by triangulation (combined), data analysis is inductive/qualitative, and the results Qualitative research emphasizes meaning rather than generalization [11]. This research was conducted at the Royal Prima Hospital, which is located on Jl. Ayahanda No.68A, Sei Putih Tengah, Kec. Medan Petisah, Kota Medan, Sumatera Utara. The research sample used is people who play a role in calculating BPJS financing at RSU Royal Prima Medan according to inclusion and exclusion criteria.

The sample or informants that will be used in this study are 4 people, including 1 informant in the BPJS patient register section, 1 Head informant in the BPJS financing calculation section, and 2 staff informants in the BPJS financing calculation section. In this study primary data obtained from the documentation carried out by researchers at the time of collecting detailed data on costs obtained from the finance department for patients with type II diabetes mellitus who used treatment financing with INA – CBG's and underwent inpatient treatment at RSU Royal Prima Medan in the period January 2021-September 2021 with INA-CBG's diagnostic code E-4-10-I, E-4-10-II and E-4-10-III. Secondary data is primary data that has been further processed and has been presented by other parties, for example in tabular form. tables or in the form of diagrams.

1. Diabetes Mellitus Type II

Type 2 DM is the most common type of DM, accounting for about 90% of all cases of DM. In type 2 diabetes, hyperglycemia is the result of inadequate insulin production and the body's inability to respond fully to insulin, defined as insulin resistance.

2. Hospitalization

Inpatient care is a service for patients who enter a hospital using a bed for the purposes of observation, diagnosis, therapy, medical rehabilitation and other medical support.

3. INA – CBG's

Based on the Regulation of the Minister of Health of the Republic of Indonesia Number 76 of 2016 concerning Guidelines for Indonesia Case Base Groups (INA-CBGs) in the implementation of national health insurance. In Indonesia, the prospective payment method is known as case-based payment (casemix), and has been implemented since 2008 as a payment method for the Jaminan Kesehatan Masyarakat (Jamkesmas) Program. The INA-CBGs application is an application used in the Jaminan Kesehatan Nasional (JKN) program which started on January 1, 2014. The development of validity used by researchers is a triangulation technique.

There are several activities in data analysis, namely:

1. Data Reduction
Reducing data means summarizing, sorting out the main things, looking for themes and patterns.
2. Data Presentation
After the data is reduced, the next step is to present the data. The presentation of the data is done in the form of a brief description.
3. Conclusions
The final step in qualitative data analysis is drawing conclusions and verification.

III. RESULT AND DISCUSSION

Overview of Research Sites

Royal Prima Hospital Medan is one of the largest private hospitals and will become a referral center for the community, especially the city of Medan and the people of North Sumatra in general. Vision and Mission of Royal Prima Hospital Medan

1. Vision
The vision of the Royal Prima Hospital in Medan is to become a Leading Hospital in the fields of health services, education and research and health development by prioritizing the interests of public health.
2. Mission
The mission of the Royal Prima Hospital Medan is:
 - a. Organizing quality and professional plenary health services based on evidence and scientific research
 - b. Continuously improve the competence of human resources in accordance with the development of science and technology in medicine, dentistry and other health
 - c. Improving the quality and quantity of health, education and research facilities/infrastructure in accordance with technological developments and community needs
 - d. Carry out a comprehensive and integrated research and evidence-based education function in the health sector
 - e. Creating a work environment that synergizes and upholds human and religious values as well as improves the welfare of related parties
 - f. Establish partnerships with various parties in an effort to strengthen the role of hospitals in health services and education
 - g. Carry out service to the interests of public health

Research result

Characteristics of Type II DM Patients Inpatient at RSU Royal Prima Medan by Age in 2021

The frequency distribution of the characteristics of Type II DM Patients Inpatient at RSU Royal Prima Medan by Age in 2021 can be seen in the following table

Table 4.1. Patient Characteristics by Age

Age	n	(%)
40 - 50 Years	5	14,7
> 50 Years	29	85,3
Total	34	100

Table 4.1 describes the characteristics of Type II DM patient's inpatient at RSU Royal Prima Medan in 2021 based on age, patients aged 40-50 years as many as 5 patients with a percentage of 14.7%, and for patients aged > 50 years as many as 29 patients. with a percentage of 85.3% of the total inpatient type II DM patients at RSU Royal Prima Medan in 2021, amounting to 34 respondents.

Characteristics of Type II DM Patients Inpatient at RSU Royal Prima Medan by Gender in 2021

The frequency distribution of the characteristics of Type II DM Patients Inpatient at RSU Royal Prima Medan Based on gender in 2021 can be seen in the following table:

Table 4.2. Patient Characteristics by Gender

Gender	n	(%)
Male	15	44,1
Female	19	55,9
Total	34	100

Table 4.2 describes the characteristics of Type II DM patients who are hospitalized at RSU Royal Prima Medan in 2021 based on gender, patients with male sex as many as 16 patients with a percentage of 44.1%, patients with female sex as many as 19 patients with the percentage of 55.9% of the total of all Type II DM patient's inpatient at Royal Prima Hospital Medan in 2021, which amounted to 34 respondents.

Characteristics of Informants

The following are the characteristics of informants in this study which can be seen in the following table:

Table 4.3. Characteristics of Informants

No	Division	Informant Group
1.	BPJS Patient Register Officer	The Hospital
2.	Head of BPJS Financing Calculation Section	
3.	BPJS Funding Calculation Section Staff	
4.	BPJS Funding Calculation Section Staff	

Results of Informants' Answers Regarding General Questions Regarding the Application of Costs Related to Treatment of Type II DM Patients inpatient at Royal Prima Hospital based on INA - CBG's rates

The results of the study by conducting interviews with informants regarding the evaluation of the effectiveness of the application of costs related to the treatment of type II DM patient's inpatient at Royal Prima Hospital based on INA - CBG's rates can be seen in the following table:

Table 4.4. Informant Statement Matrix on the application of costs related to inpatient type II DM patients at RSU Royal Prima based on INA - CBG's rates

Informant	Question
Informant 1 (Patient BPJS Register Officer)	1. What do you know about the INA CBG's system? How is the tariff adjustment to the service rate at RSU Royal Prima Medan? Answer: "The system used as the payment method for KPD FKRTL in the implementation of health insurance uses a codification system of final diagnoses and actions/procedures that become service outputs"
	2. What are the strengths and weaknesses of RSU Royal Prima Medan in facing the National Health Insurance program? Details of each strength and weakness? Answer: "The advantages of INA-CBGs can make it easier for the hospital to determine patient rates. As for the problem of obstacles, it is not too significant, because the instructions for the INA-CBGs system are already in Permenkes Number 27 2014. Just follow it. However, usually the problem is when input data, there is a doctor's writing that is difficult to read, that's the usual thing causing the process of entering patient data to be constrained "
	3. How is the evaluation of the financing so that it can continue? Answer: "For the evaluation of the financing carried out so that it can run continuously, you can ask directly to the finance department"
	4. How to continue to take action without any loss? Answer: "There is monitoring by the case manager and the TKMKB team"
	5. What is the tariff for the INA-CBG'S package for type 2 diabetes mellitus patients treated at RSU Royal Prima Medan? Answer: "The rates vary, based on the severity of each DM patient and also based on the length of the patient's hospitalization"
	6. Does the length of treatment for type 2 diabetes mellitus patients affect the rate of INA-CBG'S? Answer: "The length of treatment does not affect the INA-CBG'S rate because in the INA-CBG'S calculation there are already provisions for each, the length of

Informant	Question
	<p>patient's hospitalization will affect the costs incurred by the patient for inpatient care"</p> <p>7. How is the provision of human resources by the hospital to implement the INA-CBG'S system? Answer: "The availability of human resources is in accordance with the provisions, the number and quality of human resources have been adjusted to the needs of the hospital"</p> <p>8. What is the strategy carried out by the hospital in an effort to support the implementation of the INA-CBG'S system? Answer: "The strategy used is usually to control the doctor and coder. The control is done by seeing how disciplined the doctor collects the patient's medical record file. It's on time or not. All of that is recorded, then clarified by the doctor in question, besides that the hospital usually always updates the INA software "</p> <p>9. How is the supervision during the implementation of the INA-CBG'S system for type 2 diabetes mellitus patients treated at RSU Royal Prima Medan? Answer: "The monitoring system here is carried out every week. What we see here is the doctor's discipline in filling out the patient's medical records. If there is a doctor who is incomplete in filling out the medical record, then we will clarify it with the doctor concerned/officer"</p> <p>10. How to assess the success of the implementation of the INA-CBG'S system in patients with type 2 diabetes mellitus treated at RSU Royal Prima Medan? Answer: "If the patient's medical resume is complete, the accuracy of collecting resumes from medical colleagues if here (medical record room) the doctor's discipline is still around 80%. Because there are still doctors who do not complete the contents of their patient's medical records, so the nurse on duty is late in collecting the patient's medical record"</p>
<p>Informant 2 (Head of BPJS Financing Calculation Section)</p>	<p>1. What do you know about the INA CBG's system? How is the tariff adjustment to the service rate at RSU Royal Prima Medan? Answer: "The INA-CBGs system is a coding system of the last diagnosis and action/producer that becomes the service output, based on costing and coding data"</p> <p>2. What are the strengths and weaknesses of RSU Royal Prima Medan in facing the National Health Insurance program? Details of each strength and weakness? Answer: "The advantages are that it is simpler in determining rates, if the problem is, if you want to input data, the patient will enter, but the doctor's writing is difficult to read. Usually, the doctor's writing is too hard to read."</p> <p>3. How is the evaluation of the financing so that it can continue? Answer: "For the financial unit, the evaluation system is conducted quarterly, semesterly, and annually. We will see the final results of the evaluation at the end of the year"</p> <p>4. How to continue to take action without any loss? Answer: "The way is to do monitoring so that there are no errors when inputting data that has an impact on hospital losses"</p> <p>5. What is the tariff for the INA-CBG'S package for type 2 diabetes mellitus patients treated at RSU Royal Prima Medan? Answer: "Inpatient diabetic patients are allocated codes E-4-10-I, E-4-10-II, and E-4-10-III, depending on the severity of the patient's condition. In the patient's medical record, it is written what type of service the patient received, how long it took, what type of illness, which doctors and nurses took care of, all of them. So, it's just a matter of counting in SIMRS, then coded. Now that it has been coded, later those codes will be inputted into the INA-CBGs application. if it has been inputted, the tariff will appear by itself, usually the tariff is based on the patient's condition"</p> <p>6. Does the length of treatment for type 2 diabetes mellitus patients affect the rate of</p>

Informant	Question
	<p>INA-CBG'S? Answer: "The rates remain the same"</p> <p>7. How is the provision of human resources by the hospital to implement the INA-CBG'S system? Answer: "For the provision of human resources usually not all can be in that section, the hospital only chooses based on the ability of officers in the INA-CBG'S system and who have the ability to run computers"</p> <p>8. What is the strategy carried out by the hospital in an effort to support the implementation of the INA-CBG'S system? Answer: "The strategy carried out by the hospital is usually always updating the software from the INA"</p> <p>9. How is the supervision during the implementation of the INA-CBG'S system for type 2 diabetes mellitus patients treated at RSU Royal Prima Medan? Answer: "Every week there is control, it is seen from the completeness and accuracy of medical record collection"</p> <p>10. How to assess the success of the implementation of the INA-CBG'S system in patients with type 2 diabetes mellitus treated at RSU Royal Prima Medan? Answer: "Successful/efficient if there is an increase in hospital income.... during the implementation of the INA-CBGs system the hospital did not experience any losses. Even the income we got exceeded the target we wanted to achieve"</p>
<p>Informant 3 (Staff of BPJS 1 Financing Calculation Section)</p>	<p>1. What do you know about the INA CBG's system? How is the tariff adjustment to the service rate at RSU Royal Prima Medan? Answer: "The INA CBG's system is a calculation of the payment of patient health costs"</p> <p>2. What are the strengths and weaknesses of RSU Royal Prima Medan in facing the National Health Insurance program? Details of each strength and weakness? Answer: "For its advantages, it makes it easier for officers to determine tariffs, and for weaknesses. Sometimes medical records are collected late by the duty nurse because of that, there are several DPJP (doctors in charge of services) who do not complete the contents of the patient's medical record, usually he also forgets to sign, So that's why it's too late to collect the patient's medical record "</p> <p>3. How is the evaluation of the financing so that it can continue? Answer: "We do the evaluation every quarter, semester and year. We will see the final value at the end of the year"</p> <p>4. How to continue to take action without any loss? Answer: "The trick is to always control every data that will be entered into the INA system so that there are no data errors"</p> <p>5. What is the tariff for the INA-CBG'S package for type 2 diabetes mellitus patients treated at RSU Royal Prima Medan? Answer: "The rate is adjusted according to the patient's condition"</p> <p>6. Does the length of treatment for type 2 diabetes mellitus patients affect the rate of INA-CBG'S? Answer: "No"</p> <p>7. How is the provision of human resources by the hospital to implement the INA-CBG'S system? Answer: "Until now, HR in the operation of the INA-CBG'S system at Royal Prima already has the ability and expertise in their field, because the HR in the INA-CBG'S section has been given training first and is certain to be able to operate a computer"</p> <p>8. What is the strategy carried out by the hospital in an effort to support the</p>

Informant	Question
	<p>implementation of the INA-CBG'S system? Answer: "This application must always be controlled by INA-CBGs, because it must be updated according to the latest"</p> <p>9. How is the supervision during the implementation of the INA-CBG'S system in patients with type 2 diabetes mellitus treated at RSU Royal Prima Medan?</p> <p>10. Answer: "The control is for the coder every day, because if there is an error in entering the code, the tariff will also be wrong later. The surveillance system is carried out by the verification and anti-fraud team."</p> <p>11. How is the assessment of the success of the implementation of the INA-CBG'S system in patients with type 2 diabetes mellitus treated at RSU Royal Prima Medan? Answer: "On time in recapitulating the patient's medical resume...the doctor's discipline still needs to be improved, because there are some doctors who do not complete the patient's medical record"</p>
Informant 4 (Staff of BPJS 2 Financing Calculation Section)	<p>1. What do you know about the INA CBG's system? How is the tariff adjustment to the service rate at RSU Royal Prima Medan? Answer: "The INA-CBGs system is one of the health care financing systems"</p> <p>2. What are the strengths and weaknesses of RSU Royal Prima Medan in facing the National Health Insurance program? Details of each strength and weakness? Answer: "The advantage is that the system is very simple, you just need to enter the automatic code for the patient's tariff to come out immediately. The problem that usually happens is that sometimes the doctor is busy with his business, so after he checks the patient goes straight home, it's not signed, it's the patient's medical record, so the nurse is on duty. Also, late to collect the patient's medical record here (medical record room). So, we are also late in inputting data "</p> <p>3. How is the evaluation of the financing so that it can continue? Answer: "In terms of medical records, we evaluate the evaluation method based on the discipline of the doctors in filling out the patient's medical records. The evaluation is carried out every three months, but the results are still seen and recorded at the end of each year"</p> <p>4. How to continue to take action without any loss? Answer: "The trick is to supervise the officer, so that there are no errors in inputting patient data"</p> <p>5. What is the tariff for the INA-CBG'S package for type 2 diabetes mellitus patients treated at RSU Royal Prima Medan? Answer: "The cost for each patient must be different, depending on what actions are given to the patient"</p> <p>6. Does the length of treatment for type 2 diabetes mellitus patients affect the rate of INA-CBG'S? Answer: "The exact tariff is fixed, because we adjust it based on the INA-CBG'S calculation"</p> <p>7. How is the provision of human resources by the hospital to implement the INA-CBG'S system? Answer: "Human resources are first given training on the INA-CBG'S system, to further maximize the capabilities of HR who later work in the INA-CBG'S section"</p> <p>8. What is the strategy carried out by the hospital in an effort to support the implementation of the INA-CBG'S system? Answer: "The strategy is to always update the software from INA-CBGs so that there is no bias in the input process. Therefore, we must often control the software from the INA-CBGs application"</p> <p>9. How is the supervision during the implementation of the INA-CBG'S system in patients with type 2 diabetes mellitus treated at RSU Royal Prima Medan?</p>

Informant	Question
	<p>Answer: "The monitoring process for the coder is carried out every day by the internal verification and antifraud team. Entering the wrong code, it will affect everything, there can be losses for all parties, the hospital or the doctors and nurses concerned "</p> <p>10. How is the assessment of the success of the implementation of the INA-CBG'S system in patients with type 2 diabetes mellitus treated at RSU Royal Prima Medan?</p> <p>Answer: "Judging from the final results of the evaluation carried out. For example, the hospital's income reaches the target or not during the implementation of the INA-CBGs system.....The hospital develops rooms, the funds are obtained from the payment of patient taxes, which is also related to the INA-CBGs system"</p>

Discussion

Characteristics of Type II DM Patients Inpatient at RSU Royal Prima Medan

In this study, the characteristics of Type II DM patients who were hospitalized at RSU Royal Prima Medan in 2021 consisted of age and gender, the characteristics of Type II DM patients who were hospitalized at RSU Royal Prima Medan in 2021 based on age, patients aged 40-50 years were as many as 5 patients with a percentage of 14.7%, and for patients aged > 50 years as many as 29 patients with a percentage of 85.3% of the total patients with Type II DM Inpatient at RSU Royal Prima Medan in 2021 which amounted to 34 respondents , the highest prevalence of Type II DM patients occurs at the age of > 50 years this can occur due to poor people's lifestyle choices, such as unhealthy eating habits, lack of exercise, and lack of sleep, contributing to type II diabetes mellitus, this is in line with with research conducted by Isma (2021), where the results are the same, showing the most common age range for patients with type II diabetes mellitus is 45-64 years [12].

Characteristics of Type II DM patients hospitalized at Royal Prima Hospital Medan in 2021 based on gender, male patients with a percentage of 16 patients with a percentage of 44.1%, patients with female sex as many as 19 patients with a percentage of 55, 9% of the total patients with Type II DM are inpatient at RSU Royal Prima Medan in 2021, amounting to 34 respondents. Women suffer from Type II DM more than men, which is probably because physically women have a greater chance of increasing their body mass index so they are more at risk of developing Type II DM and the postmenopausal monthly cycle (premenstrual syndrome) which makes the distribution of body fat easier. accumulates as a result of the hormonal process so that it is more at risk of suffering from Type II DM. The results of this study are the same as those conducted by Isma (2021) where women are the sex most commonly affected by type II diabetes mellitus [12].

Evaluation of the Application of Costs Related to Treatment of Type II DM Patients Inpatient at RSU Royal Prima based on INA – CBG's rates

The INA-CBGs system is one of the health care financing systems. The INA-CBGs system is a coding system of the last diagnosis and the action/producer that becomes the service output, based on costing data and disease coding referring to the International Classification of Diseases (ICD) compiled by WHO with reference to ICD-10 for diagnosis and ICD-9 Clinical Modification for actions/procedures. The calculation of the INA-CBGs rate uses a group code according to the type of disease suffered by the patient. In principle, the INA-CBGs system is a system of providing compensation for health services to health service providers which is determined based on the grouping of disease diagnoses. This system seeks to control costs without compromising quality health services. Type II DM requires lifelong health services for disease management and to prevent complications. Variations in the use of insulin therapy including single insulin therapy, combination of insulin with oral antidiabetic drugs, and insulin with non-DM drugs will result in differences in the cost of treatment. So the treatment certainly requires a fairly large service fee, and most Type II DM patients require insulin therapy in addition to oral antidiabetics [13]. Based on the results of interviews with several informants, the existence of the INA-CBGs system can make it easier for the hospital to determine the rates for Type II DM patients, and the obstacles in the INA-CBGs system system from the four informants on average answered the obstacles such as at the time of data collection,

which was still many writings from doctors are difficult to understand. For the evaluation of the financing of the INA-CBGs System for Type II DM patients in order to keep it running, the Royal Prima Hospital Medan is usually carried out every trimester, semester and yearly, and for the medical record section the evaluation method is assessed from the discipline of the doctors in filling out the medical records of DM patients. Type II. Meanwhile, the actions taken by the Royal Prima Medan Hospital to anticipate losses due to the implementation of the INA-CBGs System are by monitoring regularly to avoid data input errors that can harm the Royal Prima Medan Hospital.

The amount of INA-CBGs rates for Type II DM patients at RSU Royal Prima Medan with inpatients is allocated codes E-4-10-I, E-4-10-II, and E-4-10-III, depending on the severity of the patient's condition. . The nominal costs incurred by the patient depend on the patient's condition, whether the patient has other diseases or not. In fact, the length of treatment for Type II DM patients at RSU Royal Prima Medan does not affect the INA-CBGs rates because the rates for patients have been adjusted right with the existing code with the provisions of the fees that have been set. For the provision of human resources in the implementation of the INA-CBGs system at RSU Royal Prima Medan, the hospital first makes a selection based on the ability of officers in the INA-CBG'S system and who have the ability to run computers, whose function is to ensure that the calculations in the INA-CBG'S system can run. maximally and avoid errors in data input. RSU Royal Prima Medan carries out a strategy in an effort to support the implementation of the INA-CBG'S system by always updating the INA-CBG'S system software according to the latest version. In assessing the success of the implementation of the INA-CBG'S system in type 2 diabetes mellitus patients treated at RSU Royal Prima Medan, it is done by looking at the final results of the evaluation that has been carried out by RSU Royal Prima Medan, from the results of the evaluation it will be seen how the achievement of hospital income and for RSU Royal Prima Medan based on the results of interviews with informants during the implementation of the INA-CBGs system the hospital did not experience losses, even the income earned by RSU Royal Prima exceeded the target to be achieved.

IV. CONCLUSION & SUGGESTIONS

Based on the results of research in the field and the discussion that has been described in the previous chapter, the conclusions in this research are:

1. The majority of Type II DM patients at RSU Royal Prima Medan are > 50 years old, as many as 29 patients with a percentage of 85.3%, and 15 patients for male and 19 female patients.
2. The implementation of the INA – CBG's system at RSU Royal Prima Medan for inpatient Type II DM patients is in accordance with the procedure, the obstacles faced by officers such as when entering data where there are still many writings from doctors that are difficult to understand, the INA – CBG's package rates for DM patients Type II hospitalization at RSU Royal Prima Medan is adjusted to the patient's condition and to assess the success of the implementation of the INA – CBG's system at RSU Royal Prima Medan for inpatient Type II DM patients seen from hospital income where during the implementation of the INA-CBGs system the hospital did not experience losses , even hospital revenue exceeds the target to be achieved.

The following are some suggestions and implications of this research:

1. For doctors to pay more attention to the writing aspect, so that the coder can read the results of the medical record resumes of Type II DM patients at RSU Royal Prima Medan.
2. For coders, it is necessary to re-check in terms of filling in the INA-CBGs code according to the actions taken for Type II DM patients, because the INA-CBGs code affects the amount of costs that come out as tariffs.
3. For doctors, it is necessary to have self-awareness of discipline in filling out the medical records of Type II DM patients and on time in terms of patient examinations.
4. For further researchers to conduct research on the implementation of the INA-CBGs system for other types of diseases.

REFERENCES

- [1] Dian, A. N. *Komparasi biaya rill dengan tarif paket INA-CBG's pada pasien dengan diagnosis utama diabetes mellitus rawat inap JKN di RSD dr. Soebandi Jember Periode januari 2014 – September 2015*. Universitas Jember 2017.
- [2] International Diabetes Federation. *Diabetes Evidence Demands Real Action from The Un Summit on Non-Communicable Diseases*. 2017
- [3] American Diabetes Association, *Standards of Medical Care in Diabetes*, **Diabetes Care Journal**, 2017. p. 60-80.
- [4] Lamtiar, A.S. *Analisis biaya terapi diabetes mellitus di RSUD DR.H. Kumpulan Pane Kota Tebing Tinggi tahun 2018*. Universitas Sumatera Utara, 2018.
- [5] Sutrisno, Deny, *Analisis Biaya Penyakit Diabetes Melitus Tipe II Pasien BPJS di Bangsal Penyakit Dalam RSUD Raden Mattaher Jambi Tahun 2016*. **Riset Informasi Kesehatan: Vol 6** No 1: 2018 p. 62-70
- [6] Ken, W. Indriyati, *Perbandingan biaya riil dengan tarif INA -CBG's penyakit stroke pada era jaminan kesehatan nasional di RS Islam Sultan Agung*. **Jurnal Ilmiah Ibnu Sina**, 4(1), Maret 2019, p. 117-126
- [7] Aulia, D., Ayu, S.F., Nasution, *Analisis Upaya Rumah Sakit Dalam Menutupi Kekurangan Biaya Klaim INA – CBG's yang Dihitung Dengan Metode Activities Base Costing Pada Rumah Sakit Swasta Kelas C di Kota Medan Tahun 2017*. Medan. Departemen Administrasi dan Kebijakan Kesehatan Fakultas Kesehatan Masyarakat Universitas Sumatera Utara. 2017
- [8] Mutia, A. Heru, F. Zuraida. *Cost Recovery Rate dan Pengendalian Biaya di Rumah Sakit: Studi kasus pada Rumah Sakit Pemerintah*. **Jurnal Aset (Akuntansi Riset)**, 12 (2), 2020, 372-383
- [9] Mardiah, M., & Rivany, R. *Cost Recovery Rate Tarif Rumah Sakit Dan Tarif Ina-Cbg 'S Berdasarkan Clinical Pathway Pada Penyakit Arteri Koroner Di RS Pemerintah A di Palembang Tahun 2015*. **Jurnal Ekonomi Kesehatan Indonesia**, 1(4), 2018 p.175–184.
- [10] Rizky, A. *Analisis Penerapan Indonesia Case Based Groups (Ina-Cbg's) Dalam Pelayanan Badan Penyelenggara Jaminan Sosial (Bpjs) Kesehatan Di Rumah Sakit Kabupaten Pelalawan*. **Pekbis Jurnal**, Vol.12, No.2, Juli 2020: 106-116
- [11] Sugiyono. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, CV, 2017.
- [12] Isma, O. *Comparison of Real Costs in Type 2 Diabetes Mellitus Patients With INA-CBG'S Prices in Ina-Cbg's Regional General Hospital*. **Jurnal Farmasi Tinctura**, Vol 2, No 2, Juni 2021: p. 42-51
- [13] Yusi, A. Alfina, R. *Evaluasi Biaya Pengobatan Pada Pasien Diabetes Melitus Tipe 2 Rawat Jalan dengan Terapi Insulin di RSUP X di Jakarta Periode Januari 2016-Desember 2017*. **Pharmaceutical Journal of Indonesia** 2018. 4(2): p. 91-97.