



## **ANALYSIS OF HOSPITAL AND INA-CBG'S RATES OF JKN OUTPATIENT IN GENTENG REGIONAL PUBLIC HOSPITAL IN 2021**

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### **Abstract**

The Government's effort improves the health status of the Indonesian people by establishing a Jaminan Kesehatan Nasional (JKN). JKN's program was formed by Badan Penyelenggara Jaminan Sosial Kesehatan (BPJS Kesehatan). Payment of health costs by BPJS uses the Indonesian-Case Based Group (INA-CBG's) especially for advanced health care services. INA-CBG's is payment to the main health center for a predetermined service package according to the disease diagnosis category. This makes hospitals strive to continue providing quality health services to JKN patients while still controlling costs. The aim of this research is analyze the difference between the outpatient BPJS patient rates and INA-CBG's rates at the Genteng Regional General Hospital in 2021. The research method is a retrospective observational study with simple random sampling. The total sample was 400 obtained during the period January to December 2021. The results of the research showed that the hospital rates was IDR 105,995,056 and the INA-CBG's rates was IDR 89,484,300. It was known that there were three largest cost components including drugs (drugs and chronic drugs) was IDR 51,878,574 (48.70%); patient care costs was IDR 33,980,600 (24.65%); and consultation fee was IDR. 10,400,000 (9.40%). The three largest components of hospital rates included minor chronic disease procedures and dialysis procedures. The conclusion was hospital rates are greater than INA-CBG's rates.

**Keywords :** *Analysis, Rates, Outpatient*





## Background

Everyone has the right to receive safe, quality and affordable health services (Undang-Undang Kesehatan Nomor 17, 2023). However, everyone also has the obligation to participate in social health insurance (JKN) programs such as Badan Penyelenggara Jaminan Sosial Kesehatan (BPJS Kesehatan) (Kemenkes RI, 2016). BPJS Kesehatan uses a system known as Indonesian-Case Based Group (INA-CBG's) rates for hospitals that provide advanced health care services. INA-CBG's rates are payments for BPJS Kesehatan claims at primary health centers for predetermined service packages according to disease diagnosis categories (Permenkes RI, 2016). The government continues to improve health service rates standards in implementing health insurance programs. Changes to regulations and reviews are carried out every 2 years taking into account the adequacy of contributions and program continuity (Permenkes RI, 2023). However, there were still differences between hospital rates compared to INA-CBG's rates for both inpatients and outpatients (Swandayana and Sastrawan, 2021). For some diagnoses and medical procedures, INA-CBG's rates are lower than hospital rates (Wardhana *et al.*, 2020).

Research regarding the analysis of hospital rates and INA-CBG's has been carried out previously. Analysis of differences in hospital rates and INA-CBG's rates outpatient services at Pasar Rebo Regional Hospital have been researched. The research results showed that out of a total of 500 patients, 313 patients (62.6%) had a negative rate difference (hospital rates were greater than INA-CBG's rates). A negative difference in rates occurred in the hypertensive diagnosis heart disease with (congestive) heart failure IDR. 37,563,200 (66.444%), Non-insulin-dependent diabetes mellitus IDR. 19,525,441 (7.66%), and Atherosclerotic heart disease IDR. 13,119,235 (39.63%) (Ramadhan *et al.*, 2021). Another study in the city of Mataram showed that the rates for outpatient BPJS patients obtained a negative rates difference of IDR. - 6,144,370,328,- or -13% of the INA-CBG rates (Swandayana and Sastrawan, 2021).

Genteng Regional General Hospital (RSUD) is one of the advanced referral hospitals for BPJS patients in Banyuwangi Regency. In 2021, there were a total of 89,601 outpatients with the number of BPJS patients being 53,045 (59.2%). Until the end of 2021, the hospital had paid IDR. 11,211,029,151 for outpatient BPJS patients, while INA-CBG's had paid the hospital IDR. 9,273,113,800. Hospital rates are different from INA-CBG's rates. Based on this background, research was conducted regarding the analysis of outpatient BPJS patient rates and INA-CBG's rates at the Genteng Regional General Hospital in 2021.

## Method

This research was a retrospective observational study. The research used secondary data in the form of medical records of outpatients at the Genteng Regional General Hospital in 2021. The population in this study was 41,727 outpatient BPJS patients during the period January to December 2021. The sampling technique used simple random sampling. The sample size was determined using the Slovin formula. The sample calculation result was 400.

### *Inclusion and Exclusion Criteria*

Inclusion criteria included outpatient BPJS patient rates, rates for BPJS patients who have complete medical record data and detailed treatment cost data, and rates for BPJS patients who are not paid by INA-CBG's. The exclusion criteria were patients who receive additional medication according to the patient's wishes.

### ***Instrument***

The research instrument was an observation sheet. Data collection techniques were carried out by observing data sources in the patient's medical record. Detailed medical data and claims data for INA-CBG's outpatient BPJS patients for the period January – December 2021.

### ***Data Analysis***

Data analysis was carried out by entering each cost component listed on the observation sheet into Excel. The total hospital rate each month were obtained by adding up each cost component.

### **Results and Discussion**

The components of rates spent by hospitals for outpatient BPJS patients and the rates paid by BPJS for one year are presented in **Table 1**.

**Table 1. BPJS Outpatient Patient Rates Components from January - December 2021**

No.	Component	Total (IDR)	Percentage (%)	Average/patient (IDR)
1	Consultation	10.040.000	9,47	25.100
2	Medication and chronic medication	51.878.574	48,9	129.696
3	Experts	25.000	0,02	62,5
4	Non-surgical procedures	474.400	0,45	1.186
5	Tool costs	31.200	0,03	78
6	Laboratory	2.066.500	1,95	5.166
7	Radiology	3.695.000	3,5	9.238
8	Supporting costs (ECG)	2.874.000	2,7	7.185
9	Nutrition	0	0	0
10	Patient care cost	33.960.600	32	84.902
	<b>Total Hospital rates</b>	<b>105.995.056</b>	<b>100</b>	<b>264.988</b>
	<b>Total INA-CBG's rates</b>	<b>89.484.300</b>		<b>223.711</b>

The total real hospital rates obtained for one year from the 400 samples taken were IDR. 105.995.056 with an average per patient of IDR. 264.988. Total consultation fee of IDR. 10,040,000 (9,47%) with an average rates per patient of IDR. 25,100. The total rates of medicines and chronic drugs is IDR. 51,878,574 (48,9%) with an average rates per patient of IDR. 129,696. The total expert rates is IDR. 25,000 (0,02%) with an average rates per patient of IDR. 62,5. The total rates of non-surgical procedures was IDR. 474,400 (0,45%) with an average rates per patient of IDR. 1.186. The total equipment rates was IDR. 31,200 (0,03%) with an average rates per patient of IDR. 78. The total laboratory fee was IDR. 2,066,500 (1,95%) with an average rates per patient of IDR. 5,166. The total radiology rates was IDR. 3,695,000 (3,5%) with an average rates per patient of IDR. 9,238. Total supporting rates was IDR. 2,874,000 (2,7%) with an average rates per patient of IDR. 7,185. The total patient care cost are IDR. 33,960,600 (32%) with an average rates per patient of IDR. 84,902.

There are 3 largest rates components including drugs and chronic drugs IDR. 51,878,574 (48.70%), patient care cost Rp. 33,980,600 (24.65%), and consultation fees IDR. 10,040,000 (9.40%). The results of this research are similar to research on the analysis of differences in hospital rates and INA-CBG's outpatient service rates at Budhi Asih Regional Hospital, Jakarta in 2015. It is known that the largest rates component was medicine IDR. 197,522,267.27

(37.38%), procedure fee of IDR. 172,300,000 (32.6%), supporting costs of Rp. 133,624,500 (25.28%), and the registration fee was Rp. 25,045,000 (41.47%) (Dumaris, 2016).

Drug costs are a component that is influenced by the presence of complications or other accompanying illnesses (Permenkes RI, 2018). In this study, the highest drug and chronic medication rates resulted from diagnoses of other chronic diseases (Q-5-44-0). Diagnosis of other chronic diseases (Q-5-44-0) includes several chronic diseases such as atherosclerotic heart disease, Diabetes Mellitus (DM), hypertension, epilepsy, Low Back Pain (LBP), gonarthrosis, chronic gastritis, grand mal seizures etc. An example of a chronic disease is DM. DM patients with complications receive quite a lot of medication because DM patients require lifelong treatment and the costs are quite large (Hidayati & Kustriyani, 2020; Faot, 2020).

Examples of drugs prescribed in this study for DM patients with complications are insulin injection (Humalog®), spironolactone tablets, furosemide tablets, bisoprolol 5 mg tablets, candesartan 8 mg tablets, gabapentin 300 mg tablets, and aspilet 80 mg tablets. In this study, DM patients with complications for one control received more than 1 insulin injection. The price of Humalog insulin injection at the Genteng Regional General Hospital is IDR. 107,399. INA-CBG's claim rate for diagnosis of other chronic diseases is only IDR. 181,400 (source of medical record data from Genteng Regional General Hospital). The drug rates for DM patients do not include other costs such as service fees, consultation service fees, etc., so the total rate spent by the Hospital is greater than INA-CBG's rates. DM patients are also prescribed drugs that are not listed in the National Formulary, for example Galvus® tablets (vildagliptin). Another study conducted at the Panembahan Senopati public hospital on hypertension patients showed that the percentage of total hospital costs was used for the drug cost component is 26.3% (Nilansari, *et al.*, 2021).

In this study the second largest rate was patient care cost. Patient care cost was compensation received for services from a series of observation, diagnosis, treatment, consultation, visitation, medical rehabilitation and other services provided to patients (Permenkes RI, 2018). The diagnosis of the disease that had the largest patient care cost was the diagnosis of a dialysis procedure (N-3-15-0). Hemodialysis (HD) is a procedure performed on patients with chronic kidney failure or patients whose kidney function has decreased by up to 15%. There are 20 samples of patients diagnosed with dialysis procedures who have detailed patient care cost of IDR. 21,619,000 with an average per patient of IDR. 1,080,950. INA-CBG's rate paid for diagnostic dialysis procedures was IDR. 786,200 (source of medical record data from Genteng Regional General Hospital).

Research on cost analysis of inpatient chronic kidney disease treatment with hemodialysis in hospital states that the average real cost of non-hospital hemodialysis operation is IDR 12,800,910.61 ± IDR 6,409,290.00 with the largest costs for medical support services (27.12%) (Azalea *et al.*, 2016). There are several cost components for HD patients including staff costs where training is needed for nurses who can manage HD machines; water cost component to ensure a stable supply to the reverse osmosis machine (water filter); electricity cost components; drug cost components; components of costs for purchasing equipment, reagents and consumables; component cleaning service costs; room and spare parts inventory and renovation costs; and purchasing components for HD machines (Azizan *et al.*, 2020).

The third largest fee component is the consultation fee. The highest consultation fee rate is for the diagnosis of other chronic diseases (Q-5-44-0). It is known that from a total of 400 samples taken there were 308 patients (77%). The total consultation fee for the diagnosis of other chronic diseases is IDR. 7,715,000 with an average per patient of IDR. 25,045 (source of medical record data from Genteng Regional General Hospital). Outpatient hospital rates consist of registration fees and examination fees. The rates are determined based on unit costs by looking at the economic capacity of the community and other hospital rates (Permenkes RI, 2018).

Genteng Hospital rates are determined based on local regulations. Hospital rates are calculated based on the number of types of health services provided to patients (Retrospective). Retrospective payment method is a payment method that carried out on health services provided to patients based on for each service activity provided, the more health services provided, the greater the costs that must be paid. Differences in the calculation of standard rate set by the hospital can ultimately influence the hospital's policy in determining the standard rate for BPJS patients who seek treatment at the hospital (Ramadhan *et al.*, 2021). The factors determining hospital rates are continuity of service, people's ability to purchase, upholding the principles of justice and compliance with healthy competition. For people whose hospital rates are paid by the guarantor, this must be done through a written agreement. Hospital leaders can provide relief or waiver of fees for patients who cannot afford it, and hospital fees are calculated based on each type of service and nursing provided to the patient (Permenkes RI, 2018).

Based on table 1, it is known that the total INA-CBG rates for the period January to December 2021 is IDR. 89,484,300 with an average of IDR. 223,711. The INA-CBG's rates is determined based on health services where the costs are known before health services are provided to patients undergoing treatment at the Hospital (Prospective). The INA-CBG rates calculation is based on determining disease diagnosis codes and procedure codes, which are combined into one CBG code where the rate has been determined in a data base by the Minister of Health (Permenkes RI, 2016).

The Minister of Health of the Republic of Indonesia divides the determination of rates standards for BPJS patients based on regional areas and hospital types. Genteng Regional Hospital is included in regional area 1 with a class C hospital type. In table 1 it is known that the real rate spent by the Hospital (IDR. 105,995,056) is greater than the rate paid by INA-CBG's (IDR. 89,484,300) for outpatient BPJS patients at the Genteng Regional General Hospital.

## Conclusion

Based on a total of 400 samples, it was found that the hospital fee for outpatient BPJS patients at the Genteng regional general hospital in 2021 was IDR. 105,995,056. The rate paid by INA-CBG's for outpatient BPJS patients is IDR. 89,484,300. There are 3 largest cost components including the costs of medicines and chronic medicines which are IDR. 51,878,574 (48.70%), nursing costs IDR. 33,980,600 (24.65%), and consultation fees of IDR. 10,040,000 (9.40%).

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