

Analysis of Rate Differences between Hospital Real Costs and INA-CBG's Rates for Caesarean Section and Tonsillectomy

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ABSTRACT

Hospital tariff is the compensation received by the hospital for services from service and non-service activities provided to service users. INA-CBG's tariff is the amount of claim payment by BPJS health to hospitals for service packages based on groupings of disease diagnoses and procedures. There is a difference in rates, where hospital rates are higher than INA-CBG's rates for caesarean and tonsillectomy procedures.

The purpose of this study was to identify the tariff gap between INA-CBGs tariffs and hospital tariffs for caesarean section and Tonsillectomy procedures performed at Emanuel Hospital covered by BPJS in June 2023 - August 2023 and calculate the unit cost of the case.

Descriptive research method by conducting document studies related to this research and make observations on the activities of Caesarean Section and Tonsillectomy procedures related to the costs arising from these activities.

Identification of differences in INA-CBG's rates and hospital rates for the case groups studied, namely caesarean section of Rp. -179,981,100 and tonsil surgery Rp. -21,249,900. Calculation of unit cost of caesarean section for class I amounted to Rp. 8,179,260, Class II Rp. 7,939,260 and Class III Rp. 7,699,260. Tonsillectomy unit cost calculation for class I amounted to Rp. 5,666,590, Class II Rp. 5,506,590 and Class III Rp. 5,346,590.

Class I, Class II and Class III INA-CBG's rates are lower than the unit cost of Caesarean Section and the unit cost of Tonsillectomy.

Keywords: Real tariff, INA-CBG's Tariff, Caesarean Section, Tonsillectomy

1. Introduction

Jaminan Kesehatan Nasional (JKN) government program aims to provide comprehensive health insurance to all Indonesians, so that they can lead healthy, productive, and prosperous lives. In the Preamble of the 1945 Constitution Article 34 paragraph 2 there is a provision that the state will develop a Social Security System for the entire population of Indonesia. The government implemented the 1945 Constitution by issuing Law No. 40 (Year 2004) on Sistem Jaminan Sosial Nasional (SJSN) with the aim of providing comprehensive social protection to all individuals to achieve a decent level of life, and to realize welfare, justice and prosperity in Indonesia.

Law No. 17 (Year 2023) on health in article 4 explains that every individual has the right to access health resources, receive medical care in accordance with standards, and obtain safe, quality, and affordable health services. In general, the implementation of a national health insurance system in a country will have a positive effect, namely increasing the community's ability to access health services, including hospital facilities (Irwandy & Sjaaf, 2018). However, some of the obstacles faced by hospitals that are affected by the operation and efficiency of services in the current JKN era include the amount of INA-CBG's tariffs that are still considered inappropriate by hospitals, the difference in the amount of real costs incurred by hospitals in some cases of treatment with INA-CBG's tariffs, and the frequent delays in payment of Health Insurance Organizing Agency (BPJS) health claims to hospitals which are the main problems felt by hospitals (Irwandy & Sjaaf, 2018).

Since BPJS began its role as JKN implementer, many parties have been concerned about the tariffs applied based on INA-CBG's (Indonesian Case Base Groups). This system is a payment model used by BPJS Kesehatan to reimburse claims submitted by hospitals. INA-CBG's is a payment method that follows a "package" system, where payment is based on the type of illness suffered by the patient. Hospitals will receive payment according to the INA-CBG's tariff, which reflects the average costs incurred for a particular group of diagnoses and procedures.

Ministry of Health Regulation No. 26 (Permenkes, 2021) on INA-CBG's guidelines in the implementation of health insurance regulates the method of hospital payment according to the provisions of BPJS health, which is referred to as INA-CBG's casemix. This casemix system categorizes diagnoses and procedures based on similar clinical characteristics and uniform treatment costs. Payment methods based on INA-CBG's must be determined before health services are provided to patients. In contrast, Emanuel Hospital sets patient rates after providing services to patients.

Emanuel Hospital is a type C health facility with a high number of patient visits, but based on the differences in the system, Emanuel Hospital may face financial problems due to a mismatch between the financing rates stipulated in the Minister of Health Regulation No. 3 (Indonesian Minister of Health, 2023) and the actual costs required for medical and non-medical services, as well as the current prices of drugs and medical supplies.

According to information provided by the finance department, since the implementation of the health insurance program through BPJS, there is often a discrepancy between the actual costs incurred by Emanuel Banjarnegara Hospital for patients undergoing surgical procedures, such as caesarean section and tonsil surgery, and the claims paid by BPJS through the INA-CBG's program. This often results in financial losses for hospitals that undergo these procedures. From

the results of a preliminary study conducted by researchers at the end of August 2023, data information was obtained for Patient X of the caesarean section procedure with INA-CBG's code 74.0, the INA-CBG's rate = Rp. 5,238,800 with a hospital rate = Rp. 8,680,150 while patient Y of the Tonsillectomy procedure with INA-CBG's code 28.2, the INA-CBG's rate = Rp. 3,848,600 with a hospital rate = Rp. 5,634,000.

To keep expenditures under control, hospitals need to use an appropriate accounting system, especially in cost calculation methods, to produce accurate cost information in line with the service activities carried out. Therefore, the researcher is interested in identifying problems that show tariff disparities in sectio caesarea and tonsillectomy procedures guaranteed by BPJS in June 2023 - August 2023 and calculating the unit cost or unit cost of the case.

2. Literature Review

2.1 Tariff

Tariff is the value of a service that is determined by the size of a sum of money based on the consideration that with the value of money a hospital is willing to provide services to patients (Dekrita & Samosir, 2022). Hospital tariffs are the rewards received by hospitals for services from service and non-service activities provided to service users (Indonesian Minister of Health, 2015).

2.2 INA-CBGs Tariffs

The Indonesian Case Based Groups Tariff, hereinafter referred to as the INA-CBG's Tariff, is the amount of claim payment by BPJS health to Advanced Referral Health Facilities for service packages based on groupings of disease diagnoses and procedures, including all hospital resources used in both medical and non-medical services (Indonesian Minister of Health, 2023).

The INA-CBG's tariff is a package tariff whose calculation is based on costing data and hospital coding data. Costing data is taken from selected hospital data that is a representation of the hospital, while coding data is the INA-CBG's code. The amount of tariff differs based on regionalization and hospital class level. Meanwhile, INACBG's grouping takes into account disease diagnoses, actions and severity levels (Suheri, 2022).

2.3 Caesarean Section

Caesarean section is a surgical procedure in which a cut is made through a woman's abdomen (laparotomy) and uterus (hysterotomy) to deliver one or more babies (Kenny & Myers, 2017). Caesarean section is performed on indications of fetal breech presentation, multiple pregnancies, placenta previa, maternal medical history (pre eclampsia, Diabetes Mellitus, herpes, heart disease, large uterine tumors) and fetal problems (oligohydramnios (amniotic fluid or fetal developmental disorders) (Nursanti et al., 2018).

2.4 Tonsillectomy

Chronic tonsillitis is a condition in which the tonsils experience long-lasting inflammation as a result of recurrent acute or subacute inflammation, caused by an unspecified bacterial cause. This chronic inflammation can lead to swelling of the tonsils, which can produce problems when swallowing and breathing. Local symptoms include painful swallowing, a lump in the throat, bad breath, fever, snoring, cough, runny nose, and recurrent complaints such as systemic weakness, loss of appetite, headache, and joint pain. On physical examination, there is swelling of the tonsils, widening of the tonsil crypts, and enlargement of the submandibular glands (PERHATI-KL, 2015).

3. Research Methodology

This research is a descriptive study by conducting document studies related to the research (medical record documents, financial data and casemix section data) and observing the activities of caesarean section and tonsillectomy delivery procedures related to the costs incurred as a result of these activities. The sample of caesarean section procedure was 72 cases with INA-CBG's code 74-0 and Tonsillectomy procedure was 16 cases with INA-CBG's code 28-2 in June - August of 2023).

4. Results

From the review of BPJS patient inpatient claim documents for the period June - August 2023, those that meet the sample criteria for study are the caesarian section case group, there are 72 cases with INA-CBG's code 74-0 and the tonsillectomy case group has 16 cases with INA-CBG's code 28-2. The difference between INA-CBG's rates and hospital rates for these 72 cases and 16 cases can be seen in the following table:

Table 1 shows that the tariff difference is quite high, according to the number of sectio caesarea cases, patients with severity level I have the highest tariff difference between the INA-CBG's tariff and the hospital tariff of Rp. -116,578,950, severity level II of Rp. -39,889,950 and severity level III of Rp. -23,512,950.

Table 1. Difference between INA-CBG's and Hospital Rates for caesarean section at Emanuel Hospital Banjarnegara June - August 2023

Month	Average Long Of Stay (Alos)	Severity Level	INA-CBG's Rate (Rp)	Hospital Rate (Rp)	Rate Difference (Rp)
June	3,42	I	99,537,200	146,818,300	-47,281,100
	3,5	II	13,935,000	22,450,350	-8,515,350
	3,5	III	36,619,200	42,218,550	-5,599,350
July	3,53	I	68,104,400	102,697,100	-34,592,700
	3,3	II	36,619,200	52,785,100	-16,165,900
	3,3	III	20,902,500	28,866,500	-7,964,000
August	3	I	68,104,400	102,809,550	-34,705,150
	3,33	II	41,805,000	57,013,700	-15,208,700
	3,25	III	24,412,800	34,362,400	-9,949,600
Total			410,039,700	590,021,550	-179,981,100

Source: BPJS Claim Data of Emanuel Hospital Banjarnegara

Table 2 shows that the tariff difference is quite high. In accordance with the number of tonsillectomy cases, patients with severity level I had the highest tariff difference between the INA-CBG's tariff and the hospital tariff of Rp. -11,500,050, severity level II of Rp. -7,349,000 and severity level III of Rp. -2,400,000.

Table 2. Difference between INA-CBG's and Hospital Rates for tonsillectomy at Emanuel Hospital Banjarnegara June - August 2023

Month	Average Long Of Stay (Alos)	Severity Level	INA-CBG's Rate (Rp)	Hospital Rate (Rp)	Rate Difference (Rp)
June	2	I	4,483,600	5,630,550	-1,146,950
	2	II	3,848,600	4,701,400	-852,800
		III			
July	2	I	19,243,000	24,450,100	-5,207,100
	2,66	II	15,355,800	20,244,100	-4,888,300
	3	III	4,483,600	6,884,450	-2,400,850
August	2,25	I	15,394,400	20,540,400	-5,146,000
	2	I	5,118,600	6,726,500	-1,607,900
		III			
Total			67,927,600	89,177,500	-21,249,900

Source: BPJS Claim Data of Emanuel Hospital Banjarnegara

Table 3 shows the results of the calculation of the unit cost of caesarean section obtained in each class of care, namely class I of Rp. 8,179,260, Class II Rp. 7,939,260, Class III Rp. 7,699,260.

Table 3. Results of Unit Cost Calculation of Sectio Caesarea at Emanuel Banjarnegara Hospital in 2023

No	Type of cost	Total	Unit Cost (Rp)	Class I (Rp)	Total Unit Cost (Rp)	Class II (Rp)	Total Unit Cost (Rp)	Class III (Rp)	Total Unit Cost (Rp)
1	Administration	1	127000	127000	127000	127000	127000	127000	127000
2	Accommodation	3							
	Class I		480000	480000	1440000	400000	1200000	320000	960000
	Class II		400000						
	Class III		320000						
3	Medicine and BMHP	1	1814489	1814489	1814489	1814489	1814489	1814489	1814489
	Actions in VK Preoperative	1							
4	Infusion, catheter insertion, injection		119200	119200	119200	119200	119200	119200	119200
	Supporting Examination	1							
5	Laboratory (Sysmex, HbSag, CT/BT, Blood Type, Urine Albumin)		364696	364696	364696	364696	364696	364696	364696
6	Actions in the Operating Room	1	3746345	3746345	3746345	3746345	3746345	3746345	3746345

	Inpatient Measures	1							
7	Injection, Basic Care, Askep, GB, Infusion Aff, Catheter Aff		257012	257012	257012	257012	257012	257012	257012
	Doctor's Visite			437518	437518	437518	437518	437518	437518
	Total Cost				8179260		7939260		7699260
	INA-CBGs Claim				6967500		6103200		5238800
	Difference				1211760		1836060		2460460

Table 4 shows the calculation of the unit cost of tonsillectomy obtained in each class of care, namely class I am IDR 5,666,590, class II IDR 5,506,590 and class III IDR 5,346,590.

Table 4. Calculation Results of Tonsillectomy Unit Cost at Emanuel Banjarnegara Hospital in 2023

No	Type of cost	Total	Unit Cost (Rp)	Class I (Rp)	Total Unit Cost (Rp)	Class II (Rp)	Total Unit Cost (Rp)	Class III (Rp)	Total Unit Cost (Rp)
1	Administration	1	127000	127000	127000	127000	127000	127000	127000
2	Accommodation	2							
	Class I		480000	480000	960000	400000	800000	320000	640000
	Class II		400000						
	Class III		320000						
3	Medicine and BMHP	1	1539513	1539513	1539513	1539513	1539513	1539513	1539513
	Supporting Examination	1							
4	Laboratory (Sysmex, CT/BT, Blood Type)		116331	116331	116331	116331	116331	116331	116331
5	Operating Room Measures	1	2547646	2547646	2547646	2547646	2547646	2547646	2547646
	Inpatient Measures	1							
6	Injection, Basic Care, Askep, Aff Infusion		119600	119600	119600	119600	119600	119600	119600
	Doctor's Visite			256500	256500	256500	256500	256500	256500
	Total Cost				5666590		5506590		5346590
	INA-CBGs Claim				5118600		4483600		3848600
	Difference				547990		1022990		1497990

5. Discussion

The expectation of all people is to receive high-quality and cost-effective health services. Therefore, hospitals that act as primary health care providers must carry out cost control efforts as well as maintain quality standards. As a step towards achieving this goal, the government implemented a tariff known as the INA-CBG's system. Tariffs are a key element that determines the continuity of hospital management. Rational and balanced tariff setting will have a significant impact on the quality of health services. Therefore, hospitals need to carefully set tariffs to be able to support hospital operations and development without abandoning their mission of providing services to the community.

Although tariff-setting strategies may vary from hospital to hospital, depending on ownership, size, type, and strategic objectives, the basic principle of primary concern for all hospitals is how to manage costs so that they do not exceed their revenues (Riofandi et al., 2022). Hospital tariff calculations are generally based on retrospective cost calculations, meaning that costs are billed after the service is performed. So it does not encourage the health care provider team to make efficiency while the INA-CBG's tariff as we know it is compiled based on the prospective method (Thabrany, 2014).

Many hospitals experience deficits from year to year, and various factors can influence this condition. One of them is that sometimes hospitals only take into account the costs required for healthcare delivery without considering the revenue that can be generated from the services they provide.

The difference in INA-CBG's rates and hospital rates applicable at Emanuel Banjarnegara Hospital for caesarean delivery procedures according to claims in June - August 2023 is very large, namely Rp. -179,981,100 and for Tonsil surgery amounting to Rp. -21,249,900. The results of the calculation of the unit cost of caesarean section obtained in each class of care, namely class I of Rp. 8,179,260, Class II Rp. 7,939,260, Class III Rp. 7,699,260 and the calculation of tonsillectomy unit costs obtained in each class of care, namely class I of Rp. 5,666,590, Class II Rp. 5,506,590 and Class III Rp. 5,346,590. The INA-CBG's rate is lower than the unit cost for caesarean section and tonsillectomy services in class I, class II and class III. From the number of cases based on data from June to August 2023, the most cases of cesarean section were in class III at 45 cases, while the most cases of tonsillectomy were also in class III at 10 cases, which means that the procedures for cesarean section and tonsillectomy at Emanuel Banjarnegara Hospital were detrimental to the hospital.

Precise and accurate costing can reduce the potential for errors in the process of charging patients. In its efforts to protect the interests of patients, the hospital is always committed to achieving an optimal level of efficiency and effectiveness in carrying out its duties (Lawuri et al., 2019). Cost calculation by considering unit costs can be the basis for designing budgets, be a tool in negotiating with related parties to obtain financial support, and can also be used as a reference when proposing hospital service rates.

6. Conclusion

- The results of identifying differences in INA-CBG's rates and hospital rates for the case groups studied, namely caesarean section of Rp. -179,981,100 and tonsil surgery of Rp. -21,249,900.
- The results of the calculation of the unit cost of caesarean section obtained in each class of care are class I of Rp. 8,179,260, Class II Rp. 7,939,260 and Class III Rp. 7,699,260.
- The results of the calculation of the unit cost of tonsillectomy obtained in each treatment class are class I amounting to Rp. 5,666,590, Class II Rp. 5,506,590 and Class III Rp. 5,346,590.
- Class I, Class II and Class III INA-CBG's rates are lower than the unit cost of caesarean section and the unit cost of Tonsillectomy.

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