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Preparation of Tariff Based on Unit Cost of Surgical Action in Balung Hospital Using Activity Based Costing (ABC)

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ABSTRACT

RSD Balung is a BLUD hospital, but the tariff determination had not been based on unit cost including the operation in the Installation of Hospital Operation Room Service Operations continue to show an increased, so operational expenses were increased. In JKN, there were several surgical actions that have a tariff difference that harms the hospital. The tariff claimed by hospital to BPJS was not as expected because the nominal tariff was less. The purpose of this research was to arrange tariff based on unit cost of operation cost action of room installation room of RSD Balung with Activity Based Costing (ABC) method. This research was a descriptive quantitative. The unit of analysis of this research was the Operation Room in RSD Balung by looking at the cost and service component of the service or the action to be done the operational action tariff analysis. Respondent was taken by pusposive sampling. The number of respondents in this study were 13 people. At the service of BPH, SC, and cataract in Operation Room RSD Balung there were difference of tariff either from BLUD tariff, tariff based on unit cost, and INA CBGs tariff. This difference was particularly evident from BPH services. This service was harming RSD Balung. While in SC and Cataract service, unit cost tariff was lower than BLUD tariff.

Keywords: Unit cost, Tariff, BLUD, Operation room, INA-CBG's

INTRODUCTION

Advanced health care includes service administration, examination, medication, and consultation, specilised medical intervention consisting of surgical procedures and non operative medical intervention, drug service, medical equipment, rehabilitation, blood, forensic, and corpse care. In accordance with Law Number 1 Year 2004 implemented in the Government Regulation Number 23 Year 2005[(1)] and The Regulation of Minister of Home Affairs number 61 Year 2007 on guidelines of hospitals as public service agency (BLU) and local public service agency (BLUD) optimizing quality for the public[(2)], BLU or BLUD hospitals are inter government institution set up to provide public service in the form of provision of goods and services sold without prioritizing profit and are run with efficiency and productivity principles. In order to implement efficiency and productivity principles, information as to unit cost is needed.

Unit cost is a cost spent to produce single product (service). Cost calculated derives from cost imposed on object cost[(3)]. One of the elements needed is cost analysis on the basis of unit cost and uses activity based costing (ABC). Furthermore, having found the unit cost, a hospital can stipulate tariff and sees cost positioning on the tariff and real cost received by the hospital including surgical procedures at operating theater (Installation of Hospital Operation Room)[(4)].

Agastya & Arifai (2009), explained that public service hospitals have authority to manage their own financial affairs. It enables hospital to flexibly implement healthy business in order to improve public service managed autonomously with corporate- like efficiency and productivity principles. It is a challenge for hospital management to make a breakthrough in order to earn financial income which can be used to meet hospital operation cost and development. It can be done by optimising income deriving from medical service such as income from operating theater through tariff stipulation based on unit cost. Thus, tariff stipulation system is required to enable hospital remain competitive[(5)].

Balung general hospital is a type C hospital which has an operating theater (operation room) for performing surgical procedures. Other services the hospital provides include specialised outpatient care, in patient, emergency care, operative care, supporting services such as pharmacy, laboratory, radiology, and ambulance. Balung general hospital is a government owned hospital with public service body status based on the decree of Jember Regent number 188.45/194/102/102/2013 on Balung general hospital as a public service body which aims to improve public service in order to create public welfare and smart society, flexibility in financial management based on economic and productivity principles of healthy business practice. It has been in accordance with article 2 of Government Regulation number 23, 2005 on public service body (BLU)[(1)]. In accordance with Regulation of Minister of Home Affairs number 61, 2007[(2)], as a pubic service hospital, tariff imposed is based on the unit cost.

Although Balung general hospital has been stipulated as public service body hospital, the tariff has not been based on the unit cost including surgical procedures in the operating theater (operation room). The number of surgical intervention keeps on increasing; consequently, operation cost increases too. With JKN (National Health Care), some surgical intervention tariff creates gap against unit cost; as a result, the hospital suffers from financial losses. The tariffs claimed on BPJS can not cover the unit cost. It occurs in most surgical interventions which affect hospital income; consequently it also affects the quality care. Based on the existing problems, the hospital needs further cost analysis which corresponds the hospital ability to survive.

A study conducted at Yogyakarta City Hospital in 2013 on comparison of in patient tariff with unit cost and ABC system in the hospital gives more expensive results in class II and III i.e., 18.45% for class II and 45.06% for class III of the prevailing tariffs. It is due to overhead cost in each product against cost driver, so ABC method has been able to allocate activity cost to every room precisely based on the expenditure of each activity[(6)].

According to studies on unit cost, activity based costing focuses on in patient care. Thus, with the existing problems at Balung general hospital in which operating theater ranks the second in term of hospital income, researcher suggests that it is necessary to conduct a study on the operating theater department of Balung general hospital. The problem at operating theater department of Balung general hospital is whether or not the cost imposed on patient can cover the entire expenses incurred by surgical procedures and whether or not the cost ha been efficient and effective in performing the surgical procedures..

METHODS

This study was descriptive qualitative study with study case design formulating tariffs based on activity based costing (ABC) for surgical procedure at Operating Room of Balung Hospital. Secondary data used included investment cost, operation cost, and maintenance cost.

This study was conducted at Balung general hospital of Jember Regency. It took 2 months to complete this study commencing in July as of August 2017 at Finance department and operating room of Balung hospital. Data utilized was taken during the period of 1 January 2016 up to 31 December 2016. Variables of this study include tariff based on the unit cost calculation, current tariff, INA CBGs tariff and gap tariff.

Sample taken was purposive sampling technique. Respondent of this study included staff of Finance Department, Asset Department, General Department, Head of Laundry Department, head of Central Sterile Supply Department, Head of Waste Management, Head of Security, Head of Pharmacy, Head of Integrated Administration Department, Head of MIS and Medical Record Department, Head of Maintenance Department, and medical staff at Operating Room of Balung General Hospital.

Primary data of this study was taken from interviews guided by interviews and observation with the help of check list. Secondary data of this study was obtained from documentation study by using check list sheet. Data collection was taken through interview, documentation, and observation.

RESULTS

Description of Tariff at Balung Hospital

Table 1. Description of total cost and average cost at Balung Hospital based on the BLUD tariff

No	Service	Total cost	Average cost
1	Benign prostate hyperplasia surgery	260.120.639	8.670.688
2	Cesarean Section Surgery	203.308.572	6.776.952
3	Cataract surgery	62.263.343	5.408.778

Based on the table 1, types of service studied included BPH, CS, and cataract surgery. The highest total cost was BPH surgery counting for Rp. 260.120.639. The highest average cost per patient was BPH surgery counting for Rp. 8.670.688

Description of Tariff Based on The Unit Cost

Table 2. Description of total cost and average cost of service at Balung General Hospital based on the unit cost by using ABC method

No	Service	Total cost	Average cost
1	Benign prostate hyperplasia surgery	337.070.606	11.235.687
2	Cesarean Section Surgery	163.158.805	5.438.627
3	Cataract surgery	97.392.054	3.246.402

Based on the table 2, types of service studied included BPH, CS, and cataract surgery. The highest total cost was BPH surgery counting for Rp. 333.070.606. the highest average cost per patient was BPH surgery counting for Rp. 11.235.687.

Description of Tariff Based on INA CBGs

Table 3. Description of total cost and average cost of service at Balung General Hospital based on INA CBGs

No	Service	Average cost
1	Benign prostate hyperplasia surgery	5.570.600
2	Cesarean Section Surgery	4.022.100
3	Cataract surgery	6.306.900

Based on the table 3 types of service studied included BPH, CS, and cataract surgery. The highest average cost per patient was BPH surgery counting for Rp. 6.306.900.

Tariff Comparison

Table 4. Description of gap of service tariff at Balung General Hospital

Service	BLUD Tariff	Unit cost tariff	INA CBGs tariff
BPH	8.670.688	11.235.687	5.570.600
CS	6.776.952	5.438.627	4.022.10
Catarct	5.408.778	3.246.402	6.306.900

Based on the table 4 comparison of the highest gap was BPH surgery. Tariff of BPH surgery by using unit cost was Rp. 11.235.687, BLUD tariff was Rp. 8.670.688, and INA CBGs tariff was 5.570.600. The gap shows that tariff for BPH surgery at Balung General Hospital was under unit cost calculation or insecured position. It could pose loses for the hospital if tariff adjustment was not immediately done.

DISCUSSION

Tariff based on unit cost is calculated by involving direct and indirect cost plus service fees. Tariff based on unit cost in a hospital is an important aspect addressed by both private and government hospitals. Tariffs of government hospitals are stipulated with by laws and tariffs for private hospitals are established by Regulation of Health Minister[7]. BLUD tariffs of Balung General Hospital are establised by law of Jember Regency. INA CBGs tariff is a model used by BPJS Kesehatan to pay the claims from hospitals.

The analysis found that lower INA CBGs tariff causes hospital loss. Otherwise, higher INA CBGs tariff generates hospital profit. Each hospital will stipulate tariff according to its own mission. Calculation of hospital tariff is generally based on retrospective cost calculation which means cost is paid after service is given. It definitely does not encourage health care provider to make efficiency while INA CBGs tariff as we know is composed based on prospective method. Thus, researcher will suggest that tariff calculation is no longer based on retrospective cost calculation. It is important that hospitals determine standard operating procedures by using clinical pathways so that in JKN era hospital team can deliver optimum, efficient, and effective care.

INA CBGs tariff is not perfect because some tariffs are too low and some others are too high. So, can be concluded that tariff is unstable. In addition, it uses a top down method in which overhead cost is imposed on production unit divided by the total number of patients which is strongly determined by which hospitals used as the samples for tariff calculation. If the hospital cost is high, tariff will be high too. Otherwise if the hospital cost is low, tariff will be low too. Calculation of unit cost by using BC method is not entirely determined by the number of patients; thus the result is more valid.

BPJS tariff is obtained by INA CBGs software which is a patient data entry device used to group tariff based on data deriving from medical record. INA CBGs software is installed in the hospital delivering care for

JKN members. To use INA CBGs software, a hospital must have a hospital registration code released by Directorate General of Bina Upaya Kesehatan. Subsequently the software will be activated based on the hospital types and region. Process of patient data entry is carried out after the patient is discharged. The data is gained from medical record. The amount of INA CBGs tariff is determined by coding. Coding is an activity of giving code for primary and secondary diagnosis based on ICD 10 and to give code for procedures based on ICD 9 CM. precision of diagnosis and procedures coding strongly affects result of grouper in ANA CBGs software. To obtain correct grouper result, good cooperation between doctors and coders is definitely required.

Damayanti (2016) revealed that unit cost calculation for CS is lower than INA CBGs claim tariff. It does not correspond unit cost calculation of Balung general hospital in which unit cost for CS is higher than INA CBGs claim. Tariff based on unit cost for CS is lower than tariff based on by law. It means that hospital can still generate profit from out of pocket patients as per BLUD hospital tariff[8].

Unit cost calculation by using ABC method can help reduce unnecessary cost more effectively and reduce non added value cost, and even remove cost from activity which does not require activity analysis. ABC system can give information to maximize resources and relate cost and performance as well as outcome measurement. Policy makers can utilise ABC information to increase efficiency without negatively affecting quality care and can also increase sustainable quality care.

Tariff control is essential to health care provider especially a hospital to maintain financial sustainability with in economic competition. In addition to tariff, improvement of quality health care must also be addressed by health care providers and policy makers[9]. If claim is too low, it can not finance treatment cost which has been spent. Therefore, health care providers (Hospitals) will reduce expenditure by reducing quality. If claim is too high, health care providers will not attempt to make efficiency. It will definitely neglect the available resources[10].

CONCLUSION

Tariff for BPH and CS surgery tend to pose losses while tariff for cataract surgery tend to generate profit because either BLUD tariff or unit cost tariff is lower than INA CBGs. Thus claim for cataract surgery is higher. Meanwhile claim for BPH and CS surgery is lower than the cost spent by Balung general hospital.

One of the recommendations of this study is that Balung general hospital is expected to review its tariff policy for surgical procedures especially tariff that poses losses compared to INA CBGs tariff and to compose clinical pathway and guidelines for clinical practice to which medical staff can refer for delivering patient care that correspond the circumstances of Balung general hospital to prevent the hospital from suffering further losses.

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