The Analysis of BPJS Surgery Price in Inpatient Room Army Hospital Based on Activity Based Cost, Ability to Pay and Willingness to Pay (Study in Army Hospital, Military Regional Health VII/Wirabuana)

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Abstract: This study aims to identify and analyze how the determination of rates surgical inpatient unit at the hospital under Kesdam VII / Wirabuana Makassar using Activity Based Costing System (ABC), ATP and WTP. This is a descriptive study conducted at Hospital Level II Pelamonia from May to July 2015. The study population was all the financial transactions of the hospital during the year 2014 (for the analysis of 2015) and patients in the inpatient unit of the Army Hospital Kesdam VII/Wirabuana the RS Tk II Pelamonia Makassar. The samples were all financial transactions of the hospital during the year 2014 (for the analysis of 201) obtained in general, finance, equipment, administration, all poly hospitals, and hospitalization, as well as 60 patients in inpatient hospital Army Kesdam VII / Wirabuana. ABC analysis using Microsoft Excel and the ATP and WTP analysis using SPSS. ABC analysis found that the actions of Rp.353.352 Surgery Small, Medium Surgery of Rp.718.157, Surgery Big amounted Rp.3.825.003 and Advanced Surgery for Rp.12.419.154. Analysis found that the rate is based on ATP Small surgery rates can be paid by all classes ranging from Class VIP, Class I, Class II and Class III. Surgery Medium rate can also be paid by all classes ranging from Class VIP, Class I, Class II and Class III. The surgery rate of the patient can only be paid VIP class. Advanced Surgery and rate can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III. Analysis found that the rate is based on WTP Small Operating rates can only be paid by the VIP class. Surgery Medium rate can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III. Rate of the surgery can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III. Advanced Surgery and rate can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III. Price Rational Analysis on the Surgery Room rates based ABC, ATP and WTP patient is where the Small surgery amounted to 400,000, amounting Rp.1.250.000 Surgery Medium, Large Surgery of Rp.4.000.000 and Advanced Surgery for Rp.12,500.000.

Keywords: Cost, Hospital, ABC, ATP, WTP

I. Introduction

Hospitals in an effort to control costs requires a proper accounting system, particularly the calculation method of determining fare to produce accurate cost information relating to the cost of service activities. During this time the hospital in determining the basic price only using the traditional cost system that basic price no longer reflects the specific activity because of the many categories that are indirect and likely to remain (fixed).

Department of Health defines dance as the value of a hospital services with a sum of money which, based on these values, hospitals are willing to provide services to patients. Factors to consider in setting hospital rates according to Gani (1996), is the unit cost, type of service and the level of utilization, cross-subsidies, the level of ability of the community, and equal competitor service rates.

As the development of science in the early 1900s was born of a system determining the cost based activities designed to overcome distortions costs. The accounting system is called Activity Based Costing (ABC). In the ABC method, the incurrence of costs caused by the activity of the resulting products. This approach uses the Cost Drivers are based on activities that give rise to costs, and it would be better if applied to companies that produce a variety of products.

Ability to Pay or ATP is a person’s ability to pay for services received based on income that is considered ideal. The approach used in the ATP analysis is based on the allocation of costs for the fulfillment of the daily needs of regular income (Adisasmita, 2008). Steven Russell (2000), assessing the ATP of all assets and regular income earned by the family. The more assets and income, the greater the ATP. This theory does not directly assess the ATP for health insurance contributions, but it gives an idea, how households allocate resources to health and the impact of those decisions on the welfare of the family.
Willingness to Pay or WTP, which is the amount of funds that would be paid to the health of the family. The data of household expenditure on health in the data Susenas can be used as a proxy to the PAP. Factors affecting WTP, namely income, knowledge about the rates and the perception and assessment of patient services received (Gafni, 1996).

Rates of health services need to be established rationally by considering the cost per unit and a decent price received by the user community health services (Munawar, 2003). The condition was also experienced by hospitals which are under the command of Kesdam VII Wirabuana Makassar, including Level II Hospital Pelamonia. Especially for hospitals which are under the command of Kesdam VII Makassar Wirabuana actually have systematically attempted to make tariff adjustments, but the tariff adjustment is not based on in-depth assessment of the ABC, ATP and WTP patients.

II. Literature Review

2.1 Costs

Hansen and Mowen (2009: page 47) in his book Management Accounting are translated by Deny Arnos Kwary defined as the cost of cash or cash equivalent values are sacrificed to obtain goods or services that are expected to benefit now or in the future for the organization. Mulyadi (2003: page 4) in his book entitled Activity Based Costing defines boarding costs as resources that have been or will be sacrificed to achieve the purpose of something. Cost accounting is an information system that generates cost information and information surgerys personnel to empower organizations in the management of collection activities and other decisions (Mulyadi, 2003 p 4).

2.2 Activity Based Costing (ABC)

ABC is the approach to the determination of the cost of products that charge to a product or service based on resource consumption caused activity. The rationale for this approach is that the determination of the cost of products or services performed by the activity and the activities required to use the resources that cause costs. The resources are charged to the activity, then the activity charged to cost objects based on their use. ABC introduced a causal link between the activity cost driver. According to Mulyadi (2003: page 4), the notion of ABC is activity-based accounting system oriented that accurate determination of product costs. This information system uses activity as a base as well as cost reduction and accurately determining the cost of the product/service as the goal.

ABC system is the purpose of allocating the transaction costs of the activities carried out in the organization and then allocate these costs appropriately to use the products according to product activity. According to Hansen and Mowen (2009), ABC is loading approach that first uses the direct search and drive to impose costs on the activity, and then use a variety of driving to impose costs on the cost objects. Browse the ABC system product cost with basic activities that are used to produce these products.

There are two important assumptions underlying the ABC system, the activity causing the product cost and cause demand for activity. ABC system is an alternative pricing of products or services that are currently well known and very relevant. ABC system is a system of information about the work or activities that consume resources and produce value for the consumer.

In the cost calculation system based on volume, allocation of the cost of making many procedures often result in the cost of products or services that have little or no relationship at all with the activities and resources consumed. ABC clearly shows the influence of differences in activity and changes in products or services against a fee.

2.3 Cost Driver, Resources Driver, dan Activity Driver

Cost drivers are factors that cause changes in the cost of the activity. Cost drivers are factors that can be measured are used to assign costs to activities and activity to another activity, product or service. Cost drivers are also defined as factors that cause events, absorbing requirements placed on an activity by product or service. There are two types of cost driver, the driver resource (resources driver) and driver activity (activity drivers).

Cost drivers are factor that have an impact on changes in the level of total costs. Costs occur if the resources are used for specific purposes. For example a company that manufactures kitchen appliances, has the cost of materials such as metal and bolts, direct labor costs and other costs.

Resources driver is a measure of the quantity of resources consumed by the activity. Resources driver is used to charge the resources consumed by the activities to a certain cost pool. Examples of resources are the resources percentage of the total area used by an activity. In simpler Mulyadi provide an understanding of driver resources is something which cause the consumption of resources by activity.

Activity driver is a measure of the frequency and intensity of demand for an activity to the cost object. Activity is used to charge drivers of cost pool to a cost object. Examples of driver activity is the number of different parts used in the final product to measure the consumption of material handling activities for each...
product. Simply put Mulyadi give a sense of driver activity is something that becomes the cause of consumption activity by product/service.

2.4. Activity Based Costing in Service Company

ABC working system widely applied in manufacturing companies, but also can be applied to a service company. The application of the ABC method services company has some special provisions, it is due to the characteristics of the service company. Characteristics of the company's services, which are often difficult output defined, controlling the activity of the demand for services less defined, and costs represent a higher proportion of the total cost of the entire existing capacity and it is difficult to connect the output of the activity.

Output in the service company is benefiting from the services themselves are mostly intangible, for example, the speed of a service, the quality of information, the consumer gratification. Output on intangible services company makes calculation difficult. Though difficult, today's business service using the ABC method in business.

2.5. Cost Accounting Concept in Unit Cost Calculation

The unit cost is the cost calculated for one unit of service products is calculated by dividing the total cost by the number / quantity of output (UC (unit cost) = TC (total cost) / TO (total output)). According to Blocher, costs per unit (unit cost) or average cost is the total production costs (raw materials, labor and overhead) divided by the number of units of output. Simply put, the unit cost is often referred to as the average cost that is the result of calculations with divide the total cost by the number of production. Results of calculation of the cost of the unit, there are two kinds of unit costs, ie normative unit costs and actual unit cost. Normative unit costs are prepared by first calculating a prediction of how much charge remains and how much the variable cost. To get the fixed costs per unit of product is calculated by dividing total fixed costs with the optimal amount of output that can be produced with available production capacity without changing the total fixed costs, or without the need for additional capacity.

Meanwhile, to get variable cost per unit is calculated by tracing some variable costs required per unit of production or by dividing total variable cost by the number of outputs to be produced at a total cost variables. While the actual unit cost is a result of calculation based on actual expenditures to produce a product at a certain time. The actual unit cost is calculated using the formula UC = TC / TO. The actual unit cost can be used as a basis in determining rates of health care, but need to consider the ATP and WTP society. Another understanding of unit cost and Mowen proposed by Hansen (2009), that the cost per unit (unit cost) is the total fee charged on a product divided by the number of units produced. To obtain information on cost per unit, the cost of the product is required definition, measurement and charging. There are several different ways to measure and charge. Two possibilities for the measurement system is the calculation of the actual costs and the calculation of the normal cost.

The calculation of the actual charge the actual cost of direct materials, direct labor and overhead to the product. Calculation of the normal charge actual costs of direct materials and direct labor to the product, but the overhead costs charged to products using the estimated rates. The concept of cost per unit useful in setting prices and evaluating the productivity of the product, but can give rise to interpretation/understanding is wrong. In order to understand the cost per unit properly, the variable cost per unit is the cost that changes with the amount of output, should be separated from the fixed costs per unit, the cost of which does not change with changes in the number of output.

2.6. Activity Based Management (ABM)

According to Hansen and Mowen (1999: 478), Activity Based Management is an integrated and comprehensive approach that makes management attention centered on the activities undertaken with the aim to increase customers and profits gained by providing that value. Activity Based Management by Supriyono (1999: 354), is a discipline (system-wide and integrated approach) that focuses on the management of the activities with the objective to increase the value received by consumers and the profits derived from the provision.

The purpose of Activity Based Management by Supriyono (1999: 356), is increasing the value of products or services are delivered to consumers, and therefore can be used to achieve extra profit by providing added value for consumers. According to Mulyadi (1998: 337), the purpose of Activity Based Management is to be a sustainable improvement of the customer value and eliminating waste. Activity Based Management has many benefits for a company. The main benefits of Activity Based Management in addition can be used as a measure of financial and non-financial performance, the company will be able to make efficiency costs that occur in the company's operations in a manner not eliminate value-added activities. In addition, the Activity Based Management can ensure that decision-making, planning and control based on business issues from the outside is not solely based on financial information.
The main advantages of Activity Based Management by Blocher (2000: 132), is Activity Based Management can be used to measure the effectiveness of key business processes and activities and identify how processes and activities can be improved to reduce costs and improve value for customers. Activity Based Management improve management focus by allocating resources to add value to key activities, key customers, key products and methods to maintain the company's competitive advantage.

2.7. Ability to Pay (ATP)

ATP is a person's ability to pay for services received based on income. The approach used in the ATP analysis is based on the allocation of costs for health services and intensity of use of health care facilities, where ATP is the ability of people to pay for health services received. In the concept of ATP, a great ability to pay for health care is the number of non essential expenditures such. The assumption is that if someone is able to spend on non-essential goods then of course he was also able to pay for health services that are essential (Adisasmita, 2008).

ATP concept developed from the perspective of coping strategies. This strategy includes the efforts of individuals or families to mobilize resources that are not routine (non-routine resources) to pay for a product or service they need. In the health field, the concept of ATP is used to determine an individual's ability to pay a program or health service. Research reveals strategic coping by individuals, reflecting the ATP include borrowing money, selling agricultural products, using savings, selling valuables, seek the help of donors, delaying payment, even beg.

2.8. Willingness to Pay (WTP)

WTP or willingness/desire to pay is defined as the amount that can be paid a consumer to acquire goods or services. Zhao and Kling (2005: 156), states that the WTP is the maximum price of an item to be purchased by the consumer at any given time. While Horowith & McConnell (2001: 47), emphasizing the sense of WTP on how the ability of consumers to buy a product. WTP was actually the price at the consumer level that reflects the value of the goods or service and sacrifice to obtain it (Simonson and Drolet, 2003: 92). On the other hand, WTP aimed untukmengetahui purchasing power of consumers based on consumer perception (Dinualli, 1999: 79).

To understand the concept of consumer WTP for a good or service to be started from the concept of utility, the benefit or satisfaction for consuming the goods or services at any given time. Each individual or household is always trying to maximize the utility with a certain income, and this will determine the number of requests atasajija goods will be consumed. Demand is defined as the amount of goods or services purchased or paid would ataungin (willingness to buy or willingness to pay) by the consumer at a certain price and a certain time (Perloff, 2004: 75). Utility to be gained by a consumer has paid the price related with which can be measured by WTP. A sum of money by the consumer ingindibayarkan indicator will show the utility derived from the goods (PSE-KB UGM, 2002).

2.9. Fare and Fare Determination Analysis

Rate is the value of services defined by the size of the amount of money based on the calculation that the value for money that a company is willing to provide services to its customers. While the analysis of tariffs is an activity to establish the appropriate rate after the obtained information unit cost. Decision-making about the price (pricing decision) is a decision that will affect the performance of a company over the long term. In company many factors that influence pricing policy (pricing policy decision) of a product. These factors include the target profit, the market situation and cost factors. According to Hansen and Mowen several factors to consider in pricing is the cost, market demand, competitive situation, the range of time and strategy. According to the decree of the minister of Health 582/Men.Kes/SK/VI/1997 on the pattern Rates Government Hospital, fares are part or all the cost of providing hospital services activities charged to the public in exchange for services received (MOH, 1997).

2.10. National Health Insurance

The National Health Insurance Scheme (JKN) developed in Indonesia is part of the National Social Security System (Navigation) organized through social insurance mechanism that aims to make the entire Indonesian population are protected in the insurance system so that they can meet the basic health needs. This protection is given to every person who has paid dues or dues paid by the government.

Participants in the National Health Insurance program (JKN) is any person, including foreigners who work for a minimum of 6 (six) months in Indonesia, who have paid contributions or dues paid by the government. Participants of the National Health Insurance program (JKN) consists of two groups: participants Beneficiary Contribution (PBI) health insurance and the participants not Beneficiary Contribution (PBI) health insurance. Participants Beneficiary Contribution (PBI) Health Security is poor and can not afford. Participants not Beneficiary Contribution (PBI) Health insurance is Recipients Wage Workers and members of their
families, not Receivers Wage Workers and their family members, and not the workers and their family members.

The first child up to the third child of the participant workers wage earner from birth automatically guaranteed by the Social Security Agency of Health (Health BPJS). Newborns of participant workers not wage earners, participants are not employees, attendees worker wage earners for the fourth child and so should be registered no later than 3 x 24 hour working day since the respective treated or before discharge (when patients were treated for less than 3 days). If until a predetermined time the patient is not able to demonstrate the identity number of participants JKN then the patient is declared as a public patient.

III. Research Methods

3.1 Conceptual Framework

Conceptual Framework of the research is represented as follows:

Figure 1. Conceptual Framework

3.2 Research Design

The design of this research is descriptive research is the analysis that explains, summarizes the various conditions, circumstances and variables that arise on the object of research, based on what happened. This research was conducted at the Army Hospital Kesdam VII / Wirabuana the Hospital Tk. II Pelamonia Makassar starting from Month Month May 2015 until July 2015.

3.3 Population, Sample and Research Variables

The study population was all the financial transactions of the hospital during the year 2014 (for the analysis of 2015) and patients in the inpatient unit of the Army Hospital Kesdam VII / Wirabuana the RS Tk II Pelamonia Makassar. The samples were all financial transactions of the hospital during the year 2014 (for the analysis of 2015) obtained in general, finance, equipment, administration, all polyclinic hospitals, and hospitalization, as well as 60 patients in inpatient hospital Army Kesdam VII / Wirabuana. The research variables for calculating the unit cost on the ABC System is a fixed cost, semi-variable costs, and variable costs. As for the ATP and WTP variables used are food expenditures, pengeluarana non-food, non-essential expenditures.

3.4 Research Instrument and Data Collection Method

The research instrument is using a questionnaire to ask the ATP and WTP variables, as well as using the guidelines stuffing to inquire about the unit cost of the hospital used to ABC. Data collected primary data and secondary data. In data collection with respect to this research, the method used is to conduct a document review and interviews with stakeholders associated with this research, for example by the hospital director, the common parts, finance, equipment, administration, all polyclinic hospitals, and hospitalization, and 60 patients in the inpatient unit and others.

3.5 Data Analysis

ATP and WTP analysis using SPSS and Microsoft Excel data revenues, expenses of food, non-food, and essential. The steps of the analysis is the calculation of unit cost:

a. Calculating Fixed Costs owned hospital in one year which consist of the cost of building, medical equipment cost, the cost of non-medical instrument and vehicle costs a hospital assets.
b. Calculating Fixed Operating Costs hospitals in one year consisting of building maintenance costs, the cost of medical equipment maintenance, non-medical equipment maintenance costs, vehicle maintenance costs, and salaries of employees of the hospital.

c. Counting the Cost Variable hospital within one year consist of the cost of medical consumables, the cost of non-medical consumables, the cost of electricity use, electricity consumption costs, and the cost of the phone.

d. Calculate total cost of the hospital which consists of components of fixed costs, fixed operational costs and variable costs hospitals.

e. Calculate and analyze the unit cost (unit cost) in all cost centers in the hospital.

f. Calculating the unit cost per type of action on the part of hospitals and analyze Surgery unit cost based ABC System.

g. Calculating Paying Ability (ATP) and Willingness to Pay (WTP) patients as a comparison in determining the tariff part of Surgery hospital.

h. Calculate and analyze the assumptions rates based on the unit cost (unit cost) and ABC System, ATP and WTP hospital patients.

i. Comparing the rate calculation surgical inpatient unit RS under the auspices Kesdam VII / Wirabuana based Activity Based Costing system.

### IV. Results

#### 4.1 Fare Analysis Based on Unit Cost of ABC

Results of the analysis are shown in Table 1 shows that that kind of action that has the highest rate assumption at the Space Operations Cost by Unit 3 (UC 3) is to act Sophisticated Surgery of Rp.12.500.000 and the lowest at Small Surgery of Rp.400.000.

<table>
<thead>
<tr>
<th>No</th>
<th>Actions</th>
<th>Hospital Rate (Kelas III)</th>
<th>Unit Cost (UC)</th>
<th>Difference (Rate - UC)</th>
<th>Process Material</th>
<th>Offered Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Small Surgery</td>
<td>2,403,000</td>
<td>353,352</td>
<td>2,049,648</td>
<td>189,500</td>
<td>400,000</td>
</tr>
<tr>
<td>2</td>
<td>Medium Surgery</td>
<td>3,204,000</td>
<td>718,157</td>
<td>2,485,843</td>
<td>1,145,695</td>
<td>1,250,000</td>
</tr>
<tr>
<td>3</td>
<td>Big Surgery</td>
<td>4,539,000</td>
<td>3,825,003</td>
<td>713,997</td>
<td>1,751,733</td>
<td>4,000,000</td>
</tr>
<tr>
<td>4</td>
<td>Sophisticated Surgery</td>
<td>8,010,000</td>
<td>12,419,154</td>
<td>-4,409,154</td>
<td>2,097,533</td>
<td>12,500,000</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2015

#### 4.2 Analisis Tarif Berdasarkan ATP

ATP analysis in Table 2 shows that it can be seen that the analysis of the assumption on the part of the surgical rates by which to measure ATP respondents Small Surgery assuming a rate of Rp.400.000 and based ATP respondents note that the rate Small surgeries can be paid by all classes ranging from Class VIP, class I, class II and class III. Surgery Medium to act assuming a rate of Rp.1.250.000 and based ATP respondents note that the rate Surgery Medium can also be paid by all classes ranging from Class VIP, Class I, Class II and Class III. For the action of the surgery assuming a rate of Rp.4.000.000 and based ATP respondents note that the rate of the surgery can only be paid VIP class patients. And to act Sophisticated Surgery assuming a rate of Rp.12.500.000 and based ATP respondents note that rates Advanced Surgeries can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III.

<table>
<thead>
<tr>
<th>No</th>
<th>Actions</th>
<th>UC Surgery Room</th>
<th>Rate Assumption</th>
<th>Care Class</th>
<th>ATP Respondent</th>
<th>Able to be Paid by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Small Surgery</td>
<td>353,352</td>
<td>400,000</td>
<td>Class-VIP</td>
<td>4.327,200</td>
<td>All Class</td>
</tr>
<tr>
<td></td>
<td>Medium Surgery</td>
<td>718,157</td>
<td>1,250,000</td>
<td>Class-I</td>
<td>2.052,800</td>
<td>All Class</td>
</tr>
<tr>
<td></td>
<td>Big Surgery</td>
<td>3,825,003</td>
<td>4,000,000</td>
<td>Class-II</td>
<td>1,577,400</td>
<td>Class-VIP</td>
</tr>
<tr>
<td></td>
<td>Sophisticated Surgery</td>
<td>12,419,154</td>
<td>12,500,000</td>
<td>Class-III</td>
<td>2,156,460</td>
<td>None</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2015

#### 4.3 Analisis Tarif Berdasarkan WTP

The following analysis of WTP in a patient in the Operating Room.

<table>
<thead>
<tr>
<th>Surgery Room Process</th>
<th>UC Surgery Room</th>
<th>Rate Assumption</th>
<th>Care Class</th>
<th>ATP Respondent</th>
<th>Able to be Paid by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Surgery</td>
<td>353,352</td>
<td>400,000</td>
<td>Class-VIP</td>
<td>4.327,200</td>
<td>All Class</td>
</tr>
<tr>
<td>Medium Surgery</td>
<td>718,157</td>
<td>1,250,000</td>
<td>Class-I</td>
<td>2.052,800</td>
<td>All Class</td>
</tr>
<tr>
<td>Big Surgery</td>
<td>3,825,003</td>
<td>4,000,000</td>
<td>Class-II</td>
<td>1,577,400</td>
<td>Class-VIP</td>
</tr>
<tr>
<td>Sophisticated Surgery</td>
<td>12,419,154</td>
<td>12,500,000</td>
<td>Class-III</td>
<td>2,156,460</td>
<td>None</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2015
The Analysis Of BPJS Surgery Price In Inpatient Room Army Hospital Based On Activity Based Cost System

<table>
<thead>
<tr>
<th>Surgery Room Process</th>
<th>UC Surgery Room</th>
<th>Rate Assumption</th>
<th>Care Class</th>
<th>WTP Respondent</th>
<th>Able to be Paid by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Surgery</td>
<td>353.352</td>
<td>400.000</td>
<td>Class-VIP</td>
<td>630.000</td>
<td>Class-VIP</td>
</tr>
<tr>
<td>Medium Surgery</td>
<td>718.157</td>
<td>1.250.000</td>
<td>Class-I</td>
<td>140.833</td>
<td>None</td>
</tr>
<tr>
<td>Big Surgery</td>
<td>3.825.003</td>
<td>4.000.000</td>
<td>Class-II</td>
<td>113.056</td>
<td>None</td>
</tr>
<tr>
<td>Sophisticated Surgery</td>
<td>12.419.154</td>
<td>12.500.000</td>
<td>Class-III</td>
<td>83.000</td>
<td>None</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2015

WTP analysis showed that the analysis of the assumption on the part of the surgical rates by which to measure the respondents WTP Small Surgery assuming a rate of Rp.400.000 and based WTP of respondents note that the rate Small surgeries can only be paid by the VIP class. Surgery Medium to act assuming a rate of Rp.1,250,000 and based WTP of respondents note that the rate Surgery Medium can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III. For the action of the surgery assuming a rate of Rp.4,000,000 and based WTP of respondents note that the rate of the surgery can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III. And to act Sophisticated Surgery assuming a rate of Rp.12,500,000 and based WTP of respondents note that rates Advanced Surgeries can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III.

4.4 Analysis and Differences with Current Rational Rates Rates

The following analysis of rational rates and differences with the current rates.

Table 4. Rational Rate Analysis Based on Care Class in TK II Pelamonia Hospital in 2015

<table>
<thead>
<tr>
<th>Care Class</th>
<th>Surgery Room Actions</th>
<th>UC Surgery Room</th>
<th>ATP</th>
<th>WTP</th>
<th>Rate Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class-VIP</td>
<td>Small Surgery</td>
<td>353.352</td>
<td>4,272,200</td>
<td>630,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Class-I</td>
<td>Medium Surgery</td>
<td>718,157</td>
<td>2,052,800</td>
<td>140,833</td>
<td>1,250,000</td>
</tr>
<tr>
<td>Class-II</td>
<td>Big Surgery</td>
<td>3,825,003</td>
<td>1,577,400</td>
<td>113,056</td>
<td>4,000,000</td>
</tr>
<tr>
<td>Class-III</td>
<td>Sophisticated Surgery</td>
<td>12,419,154</td>
<td>2,188,992</td>
<td>83,000</td>
<td>12,500,000</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2015

Assuming rational tariff calculation results in Table 4 above shows that patients in the VIP class have no difficulty in paying less meaningful action on the Surgery Room at the Hospital Level II Pelamonia good in Surgery action Small, Medium and Large. But patients can not afford the VIP class action Sophisticated surgery because much of the capability especially their willingness to pay. Rates for Small Surgeries granted for Rp.400,000 seeing ATP and WTP respondent then it does not become an obstacle.

Large and Sophisticated Operating rates are assumed for each Rp.4,000,000 and very heavy Rp.12,500,000 paid by the respondents as far away from the ability (ATP) let alone the willingness (WTP) to pay respondents. And researchers still assume so because the rates are also considering medical consumables used in such acts.

Tabel 5. BPJS Rate and Unit Cost (Activity Based Cost System) Difference at Maternity Division of TK II Pelamonia Hospital in 2015

<table>
<thead>
<tr>
<th>No</th>
<th>Actions</th>
<th>Inpatient Hospital Rate (Class III)</th>
<th>Unit Cost</th>
<th>Inpatient Rate CBGs BPJS (PMK 59, 2014)</th>
<th>UC 3 and BPJS Rate Difference</th>
<th>Hospital Rate and BPJS Rate Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Small Surgery</td>
<td>2,403.000</td>
<td>353.352</td>
<td>4,463.700</td>
<td>-4,110.348</td>
<td>-2,060.700</td>
</tr>
<tr>
<td>2</td>
<td>Medium Surgery</td>
<td>3,204.000</td>
<td>718.157</td>
<td>4,926.200</td>
<td>-4,208.043</td>
<td>-1,722.200</td>
</tr>
<tr>
<td>3</td>
<td>Big Surgery</td>
<td>4,539.000</td>
<td>3,825.003</td>
<td>5,166.800</td>
<td>-1,341.797</td>
<td>-627,800</td>
</tr>
<tr>
<td>4</td>
<td>Sophisticated Surgery</td>
<td>8,010.000</td>
<td>12,419,154</td>
<td>30,466,600</td>
<td>-18,047,446</td>
<td>-22,456,600</td>
</tr>
</tbody>
</table>

Sources: Primary Data, 2015

Table 5 above shows that the rate is based on Minister of Health Regulation No. 59 Year 2014 found that the greatest Advanced Surgeries which amounted Rp.30,466,600, followed by surgeries which amounted Rp.5,166,800 Large, Medium Surgery of Rp.4,926. 200 and Small Surgery of Rp.4,463,700. The difference between the cost of unit III with tariffs set BPJS found all actions have a negative difference in terms of unit cost TK II III RS Pelamonia Makassar lower than Rates BPJS where the greatest difference in action which amounted minus Advanced Surgeries Rp.18,047,446. While the difference between hospitals Rates Rates are set BPJS also found that all actions have a negative difference in terms of tariffs RS TK II Pelamonia Makassar on the lower part of Surgery Rates BPJS where the biggest difference in the Advanced Surgeries action which amounted to minus Rp. 22,4566 million.

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Figure 2. Intersection Graph of ATP and WTP Patients in TK II Pelamonia Hospital

Figure 2 above can be explained that ATP patient most of which are on the VIP class for Rp.4,327,200 and the smallest are in Class II which amounted Rp.1,577,400. As for the greatest patient WTP exist in VIP class as well, amounting to Rp.630,000 and the lowest in the Class III which amounted Rp.83,000. The graph illustrates the ATP and WTP lines that do not intersect so that it can be explained there is no agreement between the patient Paying Ability and willingness to pay for health care in hospitals TK II Palamonia Makassar. The ability of patients to all classes of average height, but it does not happen on their willingness to pay. The right conditions is when the patient's ability to pay, followed by their great desire to pay for health services that they use.

V. Discussion

5.1. Rates Based on Unit Cost Analysis Based on ABC

The unit cost (unit cost) in this study divided into two types of unit costs based on actual output, or based on the amount of actual production (according to the number of beds in use) and the unit cost of the ideal which is calculated with 80% of output corresponding installed capacity (80% x output normative). The use of two types of unit cost is intended to look at the performance of the hospital. If the actual output generated by the class of treatment is in conformity with the standards of performance of hospitalization (BOR 80% - 90%) then the unit cost can be used to determine the rate, but if the output of a class of treatments far below the standard of performance of the hospital before determining rates should pay attention to the ideal size of unit cost.

The difference in the value of the unit cost is due to the difference in the total cost. The hospital in lowering the unit cost must consider the total cost components namely fixed costs, fixed operational costs and operational costs are not fixed. By conducting an analysis of these costs can be performed reduction in the value unit cost. Unit costs were obtained in the double distribution can not be used to output a heterogeneous as the radiology and laboratory. As a first step to determine the value of the unit cost measures perjenis namely by finding RVU values, where this value is obtained by multiplying the weight of this type of action with each output on each type of action.

The results showed that the highest RF value in the Operating Room section for the type of action of the surgery, amounting to 1,386 (63%), and the smallest in Medium Operating action which amounted to 69 (3%). After the RVU values on all kinds of actions acquired the unit costs (parts cost) for each type of action can be obtained with the help of RVU. Greater than the unit cost is highly dependent perjenis action by two things namely the RVU values and Total Cost. In the Operating Room Surgical Hospital Level II Pelamonia known that the type of action that has the highest unit cost in the Operating Room at Cost Unit III is an action which is equal to Advanced Surgeries and the lowest Rp.17,315.666 Small surgeries which amounted Rp.353,352. Things that affect the size of the unit cost/rate assumption that is obtained is influenced by the use of materials, tools used, a large salary borne and large/small output or cases handled. In the surgical unit, basic classification of action based on the value of the materials and the means used and the complexity of some kind of action.

Rates of the hospital is a price of health care provided in the inpatient and outpatient established for a certain period of time. In general trading rates or prices applicable under the laws of the market which fluctuates from time to time one another. In the private health care service rates also can fluctuate but not as fast as changes in the price of certain komuditi. The results also showed that the type of action that has the highest rate assumption at the Space Surgery Cost by Unit 3 (UC 3) is to act Sophisticated Surgery of Rp.12,500.000 and the lowest at Small Surgery for Rp.400.000. Sophisticated surgeries have a large enough rate because due to specialist services as well as the equipment used and the amount of materials used in the act also spelled out a lot.

5.2. Fare Analysis Based on ATP

The patient's ability to pay will affect the accessibility to health services. The lower a person's ability to access health services. Ability to pay, among others, are also determined by one's income level, the greater the income level greater access to health services. Ability to pay is computed using the two concepts. First, the ability to pay based on total household nonessential spending and both the ability to pay based on 5% of the total non-food expenditure. When compared to these two concepts, which is measured by the ability to pay 5%
of non-food expenditure was much lower than the ability to pay based on the total expenditure nonessential. Descriptive analysis showed that ATP respondents based on non-essential spending per year on the VIP class average of Rp.4,327,200 (maximum Rp.5,607,222 minimum Rp.3,047,178). In the Class I ATP respondents based on non-essential spending per year on average Rp. 2,052,8 million (maximum Rp.3,321.786 minimum Rp.783.814). On Class II ATP respondents based on non-essential spending per year on average Rp. 1,577,4 million (maximum Rp.2,560.195 minimum Rp.594.605). On Class III ATP respondents based on non-essential spending per year on average Rp. 2,188,992 (maximum Rp.3,564.292 minimum Rp.813.692).

In this study used the ability to pay is based on non-essential spending. The consideration that if the public is able to mengeleluarkan purposes that are not essential or non-essential, the respondent may pay for the health of it. Analysis assumption on the part of the surgical rates by which to measure ATP respondents Small Surgery assuming a rate of Rp.400,000 and based ATP respondents note that the rate Small surgeries can be paid by all classes ranging from Class VIP, Class I, Class II and Class III. Surgery Medium to act assuming a rate of Rp.1,250,000 and based ATP respondents note that the rate Surgery Medium can also be paid by all classes ranging from Class VIP, Class I, Class II and Class III. For the action of the surgery assuming a rate of Rp.4,000,000 and based ATP respondents note that the rate of the surgery can only be paid VIP class patients. And to act Sophisticated Surgery assuming a rate of Rp.12,500,000 and based ATP respondents note that rates Advanced Surgery can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III.

5.3. Analisis Tarif Berdasarkan WTP

Measuring the willingness to pay (WTP) of patients on the inpatient unit has a fairly high degree of subjectivity, because at the time of the interview was strongly influenced by both time and atmosphere conditions. Willingness to pay consists of the actual willingness to pay and willingness to pay normative. Willingness to pay the actual measured from household expenditure on health, normative willingness to pay is the amount that willing to pay the appropriate fee tersponden perceptions regarding conditions of service in the inpatient hospital TK II Pelamonia.

Descriptive analysis showed that WTP normative respondents based on the VIP class average of Rp.630,000 (maximum Rp.733.682 of at least Rp.526,318). In the Class I WTP WTP normative respondents by an average of Rp. 140 833 (maximum Rp.175.919 minimum Rp.105.747). On Class II WTP WTP normative respondents by an average of Rp. 113 056 (maximum Rp.129.518 minimum Rp.96,594). On Class III WTP WTP normative respondents by an average of Rp. 83,000 (maximum Rp.103.412 minimum Rp.62,588).

On the other phenomena of this study explained that when viewed from the difference of patients according to income group seems that there are inconsistencies link between the magnitude of the willingness to pay (WTP) with the amount of household spending on health. In the large family spending does not always WTP is large. The nature of health services inelastic commodities, explains the relationship WTP inconsistent with household expenses. The commodity nature of health services which can dikategorikan as pimer goods, allowing a person to continue to find ways to meet their needs for health services, regardless of its costs. If the service can be improved there are a number of respondents willing to pay above the prevailing rate, but there are also respondents who still want to pay below that rate. Analysis assumption on the part of the surgical rates by which to measure the respondents WTP Small Surgery assuming a rate of Rp.400,000 and based WTP of respondents note that the rate Small surgeries can only be paid by the VIP class.

Medium Surgery assuming a rate of Rp.1,250,000 and based WTP of respondents note that the rate Surgery Medium can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III. For the action of the surgery assuming a rate of Rp.4,000,000 and based WTP of respondents note that the rate of the surgery can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III. And to act Sophisticated Surgery assuming a rate of Rp.12,500,000 and based WTP of respondents note that rates Advanced Surgery can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III.

5.4. Rational Rate Analysis and the Difference with Current Rate

Assuming rational tariffs are set on the basis of unit costs, the ability and willingness to pay patient. Without ignoring the fixed costs (FC) and semi-variable costs (SVC), the unit costs used to calculate rational tariff is the result of multiple distribution unit cost based formula III (TC = VC). The assumption, investment costs (FC) and the cost of employee salaries (SVC) is subsidized by the government. To get a rational rates, the ability to pay of households in one year is converted to the ability to pay within one month. The assumption, the needs of health care can not be ascertained time (uncertainly). If within one month there is a family member who requires treatment 6-8 days, it can be estimated ATP per patient day.

Results showed that patients in the VIP class have no difficulty in paying less meaningful action on the Surgery’s Room at the Hospital Level II Pelamonia good in Surgery action Small, Medium and Large. But patients can not afford the VIP class action Sophisticated surgery because much of the capability especially their willingness to pay. Rates for Small Surgeries granted for Rp.400,000 seeing ATP and WTP respondent then it does not become an obstacle. Large and Sophisticated Operating rates are assumed for each Rp.4.000.000 and
very heavy Rp.12.500.000 paid by the respondents as far away from the ability (ATP) let alone the willingness (WTP) to pay respondents. And researchers still assume so because the rates are also considering medical consumables used in such acts. ATP patient most of which are on the VIP class for Rp.4.327.200 and the smallest are in Class II which amounted Rp.1.577.400. As for the greatest patient WTP exist in VIP class as well, amounting to Rp.630.000 and the lowest in the Class III which amounted Rp.83.000.

ATP and WTP Graphs are not cut so that it can be explained there is no agreement between the patient Paying Ability and willingness to pay for health care in hospitals TK II Pelamonia Makassar. The ability of patients to all classes of average height, but it does not happen on their willingness to pay. The right conditions is when the patient's ability to pay, followed by their great desire to pay for health services that they use. Based on the Minister of Health Regulation No. 59 Year 2014 found that the greatest Advanced Surgeries which amounted Rp.30.466.600, followed by surgeries which amounted Rp.5.166.800 Large, Medium Surgery of Rp.4.926.200 and Small Surgery of Rp.4.463.700. The difference between the cost of unit III with tariffs set BPJS found all actions have a negative difference in terms of unit cost TK II III RS Pelamonia Makassar lower than Rates BPJS where the greatest difference in action which amounted minus Advanced Surgeries Rp.18.047.446. The conditions describe the unit cost of owned hospital has a value that is far from the rates set by BPJS Health through the Minister of Health Regulation No. 59 of 2014 so that hospitals likely to raise tariffs, especially in the Operating Room II RS TK Pelamonia.

While the difference between hospitals Rates Rates are set BPJS also found that all actions have a negative difference in terms of tariffs RS TK II Pelamonia Makassar on the lower part of Surgery Rates BPJS where the greatest difference in action which amounted minus Advanced Surgeries Rp.22.456.600. The difference is very much different to exceed 100% of the tariff in the Department of Surgery at the Hospital Level II Pelamonia Makassar. In these conditions the hospital can issue a policy to raise tariffs but must also be adapted to the patient's ability to pay and hospital rates of the same type in the city of Makassar.

VI. Conclusion

Based on analysis result and hypothesis testing, the conclusion of this research are (1) Analysis of rates based on unit cost based on ABC that found surgical inpatient unit RS Army Kesdam VII / Wirabuana Makassar that magnitude UC3 on the action was Small Surgery amounted to Rp.353.352, Medium Surgery for Rp.718.157, Big Surgery amounted Rp.3.825.003 and Advanced Surgeries for Rp.12.419.154; (2) Analysis of rates based on ATP was found that the rate Small Surgery at RS Army Kesdam VII / Wirabuana Makassar can be paid by all classes ranging from Class VIP, Class I, Class II and Class III. Medium Surgery rate can also be paid by all classes ranging from Class VIP, Class I, Class II and Class III. The surgery rate of the patient can only be paid VIP class. Advanced Surgeries and rate can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III; (3) Analysis of rates based on WTP was found that the rate Small Surgery RS Army Kesdam VII / Wirabuana Makassar can only be paid by the VIP class. Medium Surgery rate can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III. Rate of the surgery can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III. Advanced Surgeries and rate can not be paid by all classes ranging from Class VIP, Class I, Class II and Class III; and (4) Analysis of the rational at the Surgeries Room rates based Unit Cost, ATP and WTP patient is where the Small surgery amounted to 400,000, amounting Rp.1.250.000 Surgery Medium, Large Surgery of Rp.4.000.000 and Advanced Surgeries Rp.12.500.000, -. The difference (difference) between the unit cost CBGs Ina III at the rate of JKN BPJS is on Small surgeries amounted to minus Rp. 4.110.348, amounting to minus Rp.4.208.043 Surgery Medium, Large surgeries amounted to minus Rp.1.341.797, and Advanced Surgeries amounted to minus Rp.18.047.446.

Inferred values Surgery unit cost is lower than the rate of JKN BPJS Ina CBGs Health enacted in RS Tk II Pelamonia Makassar. The difference between the hospital with tariff rates Ina JKN BPJS CBGs of Health is in surgery amounted to minus Rp2.060.700 Small, Medium surgeries amounted to minus Rp.1.722.200, Surgery Big minus Rp.627.800, and Advanced Surgeries amounted to minus USD .22.456.600. Concluded Surgery hospital rates lower than the rates of JKN BPJS Ina CBGs Health enacted in RS Tk II Pelamonia Makassar.

VII. Further Research Direction

The findings obtained in this study, can be input and consideration to develop further research related to economics, especially in the health sector. The development can be done by calculating the entire item acts on all parts of the existing hospital rates dam into consideration other hospitals, the distribution of cross-subsidies, as well as the role of the government's ability to fund the tariff applied to hospital.
Membayar Masyarakat Di Kota Samarinda


Russel S., Fox


Payment


Putu Linda Astrini Waty. (2013). The Analysis of Ability and Willingness to Pay of Inpatients in Kapal Budang Hospital


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