

An Application of Activity Based Costing Method as Alternative in Determination Hospital Appendictomic Prices the True Partner of Medan Year 2020

Ali Napiah Nasution¹, Chrismis Novalinda Ginting², Frederick³, Chandra Wilim⁴

^{1,2,3,4}Master Study Program Public Health, Faculty of Medicine, Dental, and Public Health, Universitas Prima Indonesia

Abstract

The main difference between the traditional system and the activity-based costing system lies in the number of cost drivers used, in determining the cost of goods, the activity-based costing system uses more cost drivers compared to the traditional cost system which only uses one cost driver. by unit. Activity-based costing (ABC) is estimated to be more efficient in determining hospital rates. The purpose of this study was to determine the application of the activity-based costing method as an alternative in determining appendectomy rates at Mitra Sejati Hospital Medan in 2020. This study was quantitative descriptive, the population of this study was all data and files in cases of patients with acute appendicitis at Mitra Sejati Hospital. Medan Year 2020. The results showed that the unit cost of an appendectomy at Mitra Sejati General Hospital Medan using the activity-based costing method was Rp. 21,763,871.7. There is a difference in the cost of appendectomy with the unit cost using the activity-based costing method and by using real cost calculations at Mitra Sejati General Hospital Medan in 2020 with a cost difference of Rp. 2,647.034.7 There is a difference in the cost of appendectomy with the unit cost using the activity-based costing method and by using real cost calculations at Mitra Sejati General Hospital Medan in 2020 with a cost difference of Rp. 2,647.034.7

Keywords

appendectomy; activity based costing; real costs



I. Introduction

The hospital is an organization that through organized professional medical personnel and permanent medical facilities provides medical services, continuous care, diagnosis, and treatment of diseases suffered by patients (Zefri, 2016).

According to WHO (World Health Organization), the hospital is an integral part of social and medical organizations, which has the function of providing complete health services to the community, both curative and preventive. The hospital is a health service facility organized by the government and the private sector. Hospital is a health service institution that provides complete individual health services that provide inpatient, outpatient, and emergency services (PERMENKES R1 NO 4, 2018).

Meanwhile, in the National Health System, it is stated that hospitals have the main function of providing health care that is healing and recovering patients and providing services that are not limited to in-hospital care, but also provide outpatient services, as well as care outside the hospital. (2018).

Gastrointestinal disease is a dangerous disease. Percentage cause of death number 6 in the world. If the average appendicitis is 1.1 cases per 1000 people per year in the United States (Sulung & Rani, 2017). The same thing also happens in Indonesia, where the incidence of digestive disorders is still high.

Indigestion is a disease that occurs due to disruption of the human digestive system. The main cause of this digestive disorder usually occurs due to irregular and unhealthy eating patterns and stress, bacterial infections, and worms and can also be due to stomach disorders (Ashari and Muniar, 2016).

One of the digestive diseases is appendicitis. Appendicitis is an infection that occurs in the appendix organ or often called appendicitis. Acute appendicitis is one of the most common surgical problems and appendectomy is one of the most frequently performed emergency surgeries worldwide. Inflammation of the appendix begins when the opening from the appendix to the cecum becomes blocked due to the buildup of thick mucus or feces that enter the cecum blocking the duct so that bacteria can multiply, making the appendix swollen, and inflamed until pus can even cause the appendix to burst. Appendicitis is also the most common digestive disorder causing emergency abdominal surgery (Widagdo, 2017).

The hospital is one example of a non-profit-oriented organization. The main task of the hospital is to provide medical services, care, and health services. In providing health services, hospitals earn income from the income of services and facilities provided, one of which is appendectomy services for appendicitis, where income from these services is obtained from the tariffs that must be paid by users of appendectomy services for appendicitis (Aldi, 2019).

Determination of appendectomy services in appendicitis is a very important decision because it can affect the profitability of a hospital. Based on the above conditions, hospitals are required to be able to utilize technology and experts in the fields of health, communication, information, and transportation that can support health services so that hospitals can provide the best health services. According to Pramusinto (2020) the power of technology including digitalization and automation continues to grow and change the pattern of production, distribution, and consumption. The use of various technologies and experts makes the operational costs incurred by the hospital become large which will have an impact on the tariff for appendectomy services for appendicitis (Aldi, 2019).

To control costs, the hospital needs an appropriate accounting system, especially the method of calculating costs to produce accurate cost information regarding the costs of its service activities. So far, the hospital in determining the cost of goods only uses a traditional cost system where the determination of the cost of goods no longer reflects specific activities because of the many categories that are indirect and tend to be fixed (Aldi, 2019).

The main difference between the traditional system and the activity-based costing system lies in the number of cost drivers used, in determining the cost of goods, the activity-based costing system uses more cost drivers compared to the traditional cost system which only uses one cost driver. by unit (Zulia, 2020).

Activity-based costing system is an activity-based cost information system designed to motivate personnel to reduce costs in the long term through activity management (Mulyadi, 2016). The ABC system also provides information about the costs and performance of each activity and resource and can trace costs accurately to cost objects other than products, such as customers and distribution channels. The rationale for this costing approach is that the company's products or services are carried out by the required activities and activities using resources that cause costs (Zulia, 2020).

Kesumah (2019) in his research entitled "Comparison of the Calculation of the Unit Cost of Medical Services with the Conventional vs. ABC Method at the Agnesia Clinic" states that there are differences in the cost of accident patients calculated using the ABC method.

II. Review of Literature

2.1 Definition of Accounting

Accounting is the art of transactions that have occurred by recording, summarizing, classifying, and reporting. The usefulness of this is to improve the quality of a financial report for the better so that it is useful to users of information in making decisions (Bahri, 2016).

Accounting comes from the word accounting which means in Indonesian to count or account, is defined as a service activity and its function is to provide quantitative information, especially those related to finance. The information is expected to be an input in the process of making economic and rational decisions. The following are some examples of economic decisions:

1. Accept or reject credit requests (for banks or other financial institutions that are considering credit requests from customers or prospective customers)
2. Relinquish or retain shares (letters of thought in a limited liability company) that are currently owned.
3. Issue stocks or bonds to attract funds from the public. Accounting consists of three main components, namely:
4. *Input* (input): in the form of transactions, namely business events of a financial nature.
5. *Process* (procedure): covers various functions ranging from identifying transactions to presenting financial information. The main process of accounting is recording which consists of two functions, namely addition and book entry.
6. *Output* (expenditures): in the form of financial information such as income statements, statements of changes in equity, changes in financial position, and statements of cash flows.

According to the American Accounting Association (AAA) Accounting is a process of identifying, measuring, and reporting economic information by enabling a clear and firm assessment and decision-making for those who use the information (Lantip, 2016).

Accounting process/activity that analyzes, records, classifies, summarizes, reports, and interprets financial information for the benefit of its users (Catur Sasongko et.al 2016).

Accounting can be defined as an information system that provides reports to users of accounting information or to parties who have an interest in the results of the performance and financial condition of the company (Hery 2016).

2.2 Financial Management

Financial management explains several decisions that must be made, namely investment decisions, funding decisions or decisions to fulfill funding needs, and dividend policy decisions (Musthafa 2017)

Financial management is a combination of science and art that discusses, studies, and analyzes how a financial manager uses all company resources to seek funds, manage funds, and distribute funds to be able to provide profit or profit and prosperity for shareholders and sustainability business for the company (Fahmi, 2018)

Financial management is a science that broadly explores the two scopes of activities carried out by company owners, namely: First, getting the cheapest source of capital, this function includes various activities to find, analyze, and decide which sources of capital to

choose and take as well. how many. Second, using it for investments that can benefit the company, meaning that it is used for effective, efficient, and productive investments, is the company's effort to generate profits (Wiyono & Kusuma, 2017)

Based on the opinions of the experts described above, it can be concluded that financial management is a combination of science and art by planning, organizing, implementing, and controlling. Broadly speaking, financial management explores two scopes of activities carried out by the owner of the company's management, namely obtaining cheap or low sources of capital and using it for profitable investments to generate the highest profit for the company.

According to Fahmi (2018), financial management functions for company managers to be used as guidelines in making every decision that will be made. That is, a financial manager is allowed to make an innovation, but not to the point of overriding the rules that have been set in the science of financial management. For example, complying with the rules in SAK (Financial Accounting Standards).

GAAP (General Accepted Accounting Principles), laws and regulations regarding corporate financial management, and so on. In carrying out its duties, financial management has several tasks to achieve its goals. This task (obligation) is carried out in various activities that must first be planned, implemented, supervised and controlled in order to facilitate these goals, as the highest leader of the finance department, the director of finance or financial management is more responsible in this task (Wiyono & Kusuma, 2017) .

Based on the statements of experts regarding the function of financial management, it can be concluded that financial management has a function as a company guide that is useful for a financial manager in carrying out his duties, then this guideline can be used as a decision-making step in accordance with the applicable rules in financial management so that can achieve the goals that have been set.

2.3 Cost

According to Salman et al (2016) defines cost as (cost) is cash or cash equivalent value sacrificed to obtain goods or services that are expected to provide current or future benefits for the organization.

According to V. Wiratna Sujarweni (2015) costs have two meanings, namely broadly and narrowly, defining costs as follows: "Costs in a broad sense are sacrifices of economic resources measured in units of money in an effort to get something to achieve certain goals, whether already happened and has not happened/just planned. Cost in a narrow sense is the sacrifice of economic resources in units of money to obtain assets.

According to Mulyadi (2016) "The understanding of costs in the broad sense of costs is the sacrifice of economic resources, measured in units of money, which has occurred or is likely to occur for certain purposes. There are 4 main elements in the definition of the cost:

1. Cost is a sacrifice of economic resources
2. Measured in units of money,
3. What has happened or is potentially going to happen,
4. The sacrifice is for a specific purpose."

According to Firdaus Dunia et al. (2018) states that the definition of cost is: "Expenditures or the value of sacrifices to obtain goods and services that have benefits for the future, which exceeds one accounting period. Usually this amount is presented in the statement of financial position as elements of assets.

From several definitions according to the experts above, the author concludes that costs occur in order to obtain benefits. In companies that aim to make a profit, future benefits mean income, with an expense or sacrifice incurred to obtain goods or services that are expected to benefit.

Table 1. The Difference Between Traditional Costing Methods With Activity Based Costing

	Traditional Method	Activity Based Costing
Destination	Inventory Level	Production cost assignment
Scope	Production stage	Design, production, development stages
Focus	Cost of raw materials, direct labor	Overhead costs
Period	Accounting Period	Product life cycle
Technology Used	Manual Method	Computerized

III. Research Methods

This type of research is descriptive quantitative research. Descriptive research was conducted to determine the existence of independent variables, either only on one or more variables (stand-alone variables or independent variables) without making comparisons of the variables themselves and looking for relationships with other variables. (Sugiyono, 2017).

In this study, researchers analyzed the efficiency of appendectomy financing in the form of Unit Cost in acute appendicitis patients at Mitra Sejati Hospital Medan in 2020 using the ABC (Activity Based Costing) method.

In this study, researchers applied the activity based costing method as an alternative to financing acute appendicitis at Mitra Sejati Hospital Medan.

The subjects of this study were all those who were involved in appendectomy services at Mitra Sejati Hospital Medan. The object of this research is all activities and costs that occur in appendectomy services at Mitra Sejati Hospital Medan in 2020.

This research was conducted at Mitra Sejati Hospital Medan which is located at Jl. General Besar AH Nasution No.7, Pangkalan Masyhur, Kec. Medan Johor, Medan City, North Sumatra 20219. Time of the research will be carried out in September 2021 until its completion and the population of this study is all data and files on cases of patients with acute appendicitis at Mitra Sejati Hospital Medan in 2020.

The data analysis technique used in this study is a non-statistical quantitative analysis technique. The data in the form of numbers obtained from the Mitra Sejati Hospital Medan in 2020 which contains the calculations are then analyzed using the theory of the application of ABC (Activity Based Costing) in the calculations for the application of appendectomy rates at the Mitra Sejati Hospital Medan in 2020. This analysis is intended to find out how the level of competitiveness of appendectomy rates is when using the Activity based costing system so that later it can be applied as a standard for setting laparotomy rates at Mitra Sejati Hospital Medan in 2020.

IV. Discussion

4.1 Steps in Calculation of Activity Based Costing (ABC) in Appendectomy

The steps for determining tariffs for patients at service companies such as Mitra Sejati Hospital Medan, are generally carried out through several stages, namely identification of activities in each room, classification of activities and costs, identification of cost drivers, determination of rates per unit cost driver, determination of cost per room used. by patients with appendectomy and lastly cost analysis for patients with these procedures.

With ABC, hospital overhead costs are assigned to a cost object such as a product or service by identifying the resources needed to produce the output. Cost drivers are used to

calculate the resource cost of each unit of activity. Then each resource cost is assigned to the product or service by multiplying the cost of each activity by the quantity of each activity consumed in a given period. Activity based costing is a system that maintains and processes financial and operational data from company resources based on activities, cost objects,

1. Identify each activity
2. Where possible, trace directly to activities and cost objects
3. Assigning costs to each activity
4. Determine the cost driver
5. Assigning costs to cost objects using activity rates (determining the cost of appendectomy)

After going through the stages of the ABC implementation process, the next step is to make a comparison between the rates set by Mitra Sejati General Hospital in Medan and the cost of goods obtained by calculating using the ABC method. Is there a significant difference and whether the use of the ABC method as the basis for determining appendectomy rates is the right choice for Mitra Sejati Hospital Medan in the future.

Activity identification. The activities contained in each inpatient unit of Mitra Sejati General Hospital Medan consist of:

- 1) Labor costs.
- 2) Cost of raw materials.
- 3) Building depreciation expense.
- 4) Facility depreciation expense.
- 5) Cleaning fee.
- 6) Building maintenance costs.
- 7) Consumption costs.
- 8) Electricity and water costs.
- 9) Administration fee
- 10) Laundry fee.

These ten activities can then be subdivided into 4 major activities which include:

- 1) Patient care activities such as salaries of health workers.
- 2) Inventory maintenance activities consist of building depreciation costs, facility depreciation costs and cleaning costs.
- 3) Patient maintenance activities, namely consumption costs.
- 4) Patient service activities which include the cost of consumables, electricity and water costs, administrative costs and laundry costs.

The breakdown of salaries for health workers is shown in table 2 below:

Table 2. Health Personnel Costs at Mitra Sejati Hospital Medan

Power Type	Basic Salary 1 Month (Rp)	1 Month Incentive (Rp)	Operator Rates	Total 1 Month (Rp)	Amount 1 Year (Rp)
General practitioners	3,780,000	1,800,000		5,580,000	66,960,000
Surgeon			2,250,000		
Anesthetist			1,500,000		
Nurse	2,700,000			2,700,000	32.400.000

Identify other sources of financing to conduct a unit cost analysis, namely the breakdown of consumables (BHP). BHP in appendectomy cases in the Emergency Room

(IGD) includes the cost of infusion equipment, injection of antibiotics and pain relievers as shown in table 3 below:

Table 3. Cost of BHP with Appendectomy in the Emergency Room at Mitra Sejati General Hospital Medan in 2020

Consumables Name	Length of Days of Care	Amount	Price (Rp)	Amount (Rp)
Ringer Lactate Sanbe	1	1	Rp. 22,000.00	Rp. 22,000.00
Fresco Macro Infuset	1	1	Rp. 6,756.75	Rp. 6,756.75
Abocath 22 Remedi	1	1	Rp. 13,876.00	Rp. 13,876.00
IV Dressing 8 Cm X 6 Cm	1	1	Rp. 3,502.00	Rp. 3,502.00
3 cc syringe (ONEMED)	1	1	Rp. 1,569.00	Rp. 1,569.00
Aquabides 25 ml OTSUKA	1	1	Rp. 3,861.00	Rp. 3,861.00
5 cc syringe (ONEMED)	1	1	Rp. 1,050.00	Rp. 1,050.00
10 cc syringe (ONEMED)	1	1	Rp. 1,800.00	Rp. 1,800.00
Nacl 0.9% Infusion, 500 ml (OGB)	1	1	Rp. 17,000.00	Rp. 17,000.00
Abocath 20 Remedi	1	1	Rp. 8,607.00	Rp. 8,607.00
Abocath 24 Vasflow	1	1	Rp. 11,325.00	Rp. 11,325.00
70% alcohol	1	1	Rp. 147.00	Rp. 147.00
Plastic Apron (Solid)	1	1	Rp. 8,800.00	Rp. 8,800.00
Aquabides 2L SANBE	1	1	Rp. 28,000.00	Rp. 28,000.00
Lodine povidone 1 liter	1	1	Rp. 75.00	Rp. 75.00
Hand skune non sterile uk.L SUWARNA	1	1	Rp. 1,705.00	Rp. 1,705.00
Ultrafix	1	1	Rp. 155.00	Rp. 155.00
ORGAN RAPE MASK	1	1	Rp. 1,755.00	Rp. 1,755.00
Foley Catheter No16 (REMEDI)	1	1	Rp. 22,275.00	Rp. 22,275.00
Spinocan 25 (Spinocan 25G X 3.5)	1	1	Rp. 55,000.00	Rp. 55,000.00
Girls hat (Nurse	1	1	Rp. 4,000.00	Rp. 4,000.00

Cap)				
Boy's hat (Surgeon Cap)	1	1	Rp. 4,000.00	Rp. 4,000.00
Transfusion set Stera (Blood set)	1	1	Rp. 8,800.00	Rp. 8,800.00
Urine Bag (FRESCO)	1	1	Rp. 10,395.00	Rp. 10,395.00
Underpad PD (ProDevice) 69X90 cm	1	1	Rp. 7,000.00	Rp. 7,000.00
100 ml Plastic Pot	1	1	Rp. 4,500.00	Rp. 4,500.00
Adult O2 Hose - NEUSMED	1	1	Rp. 25,000.00	Rp. 25,000.00
Hand Skune 8 (Ansell Gamex No 8 sterile)	1	1	Rp. 21,000.00	Rp. 21,000.00
Hand skune 6.5 PD GLOVERS	1	1	Rp. 9,500.00	Rp. 9,500.00
Hand skune 7 Shamrock	1	1	Rp. 8,100.00	Rp. 8,100.00
Hand skune 7.5 PD GLOVERS	1	1	Rp. 9,500.00	Rp. 9,500.00
Total				Rp. 321.053

The next step is to identify BHP in the IBS room. The materials used are distinguished based on the actions given according to the diagnosis that has been established in the ER. The costs of all BHP that have been identified are as shown in table 4 below:

Table 4. Cost of BHP with an appendectomy in the IBS Room at Mitra Sejati Hospital Medan in 2020

Consumables Name	Length of Days of Care	Amount	Price (Rp)	Amount (Rp)
Ringer Lactate Sanbe	1	1	Rp. 22,000.00	Rp. 22,000.00
Fresco Macro Infuset	1	2	Rp. 6,756.00	Rp. 13,512
Abocath 22 Remedi	1	1	Rp. 13,876.00	Rp. 13,876.00
Ceftriaxone inj	1	1	Rp. 38.500.00	Rp. 38,500,000
3 cc syringe (ONEMED)	1	1	Rp. 1,569.00	Rp. 1,569.00
Gauze Box	1	2	Rp. 8.580.00	Rp. 17.000.00
Leucoplast	1	10	Rp. 1,9000.00	Rp. 19,000.00
Catgut Palin	1	1	Rp. 108.000.00	Rp. 108.000.00
Nacl 0.9% Infusion, 500 ml (OGB)	1	1	Rp. 17,000.00	Rp. 17,000.00
Attracurium 10	1	2	Rp. 20.500.00	Rp. 41.000.00

mg				
Catgut Chronic	1	2	Rp. 110.000.00	Rp. 2200.00
Bisturi	1	2	Rp. 3,6000.00	Rp. 7.200.00
ORGAN RAPE MASK	1	4	Rp. 1,755.00	Rp. 7,020.00
Nald	1	3	Rp. 800.00	Rp.2,400.00
Bupivacaine Inj	1	1	Rp. 43,7000.00	Rp. 43,7000.00
Total				Rp. 571.777.00

The next step is to identify BHP in the IBS room. The materials used are distinguished based on the actions given according to the diagnosis that has been established in the ER. The costs of all BHP that have been identified are as shown in the following table 5:

Table 5. Cost of BHP with Appendectomy in the Inpatient Room at Mitra Sejati General Hospital Medan in 2020

Consumables Name	Length of Days of Care	Amount	Price (Rp)	Amount (Rp)
Ringer Lactate Sanbe	3	6	Rp. 22,000.00	Rp. 132,000.00
Fresco Macro Infuset	3	1	Rp. 6,756.00	Rp. 6,756.00
Abocath 22 Remedi	3	1	Rp. 13,876.00	Rp. 13,876.00
Ceftriaxone inj	3	6	Rp. 38.500.00	Rp. 231.000.00
Nacl 0.9% Infusion, 500 ml (OGB)	3	1	Rp. 17,000.00	Rp. 17,000.00
Ketorolac inj	3	9	Rp. 13,632	Rp. 122,688
Ranitidine	3	6	Rp. 7.150.00	Rp. 42,900
3 cc syringe	3	6	Rp. 1,569.00	Rp. 9.414.00
5 cc syringe	3	15	Rp. 1.050.00	Rp. 15,750
sterile gauze	3	15	Rp. 950.00	Rp. 14.250.00
Betadine	3	10	Rp. 680.00	Rp. 6.800.00
Leucoplast	3	15	Rp. 1,9000.00	
Foley Catheter No16 (REMEDI)	3	1	Rp. 22.275.00	Rp. 22.275.00
Urine Bag	3	1	Rp. 10.395.00	Rp. 10.395.00
Sterile Hand Scoon	3	5	Rp. 21.000.00	Rp. 105,0000.00
Total				Rp. 750.104.00

4.2. Unit Cost Calculation Using ABC Method in Appendectomy Case

Appendectomy is a surgical procedure to remove the appendix as soon as possible to reduce the risk of perforation. Appendicitis that is not treated immediately can cause perforation and a laparotomy operation is needed which can cause the treatment costs to be more expensive than appendicectomy surgery.

Calculations using unit cost in appendectomy cases by taking into account the cost drivers of the activities carried out related to appendectomy patient services, get a result of Rp. 21,763,871.7. These costs consist of ER, IBS and inpatient room costs. Activity costs are costs that are charged to cost sources that have a direct function or activity to the output, while indirect costs are costs that are charged to cost sources that have support (indirect activities).) to the output.

The number of unit costs for appendectomy cases is calculated based on direct costs from the cost object (labor), consumables costs and consumption costs with the cost driver

being the number of days of care. The cost of consumables includes all costs related to direct operations from unit level activities in the ER, IBS inpatient rooms. Labor costs include the costs of doctors, nurses, administration. Overhead costs (indirect costs in the form of building maintenance, depreciation of buildings and facilities) are other costs that are taken into account in determining unit costs. The first step is to determine the unit cost in the emergency room, by grouping all existing activities into one classification. Activities included in the Unit Level Activity Cost include doctor's salaries, nurses' salaries, and laundry costs.

The cost in calculating the hospital ABC rate for appendectomy after it is calculated is Rp. 21,763,871.7 which consists of emergency room costs of Rp. 6,977,550.1, IBS fee of Rp. 12,853,788.6, and the inpatient room fee is Rp. 1,932,533.

ABC is more efficient in reducing the costs borne by the patient in addition to improving the quality of service so that the length of hospital stay and the length of service time are shorter. Both of these things greatly affect the amount of costs, because patients who are cured and do not experience complications will shorten the days of treatment and the time needed for services, which has an impact on reducing the cost burden. Services in the current JKN era require better innovation so that patients get quality services at affordable prices, but managers can compete with similar service providers because prices cover all activities and facility maintenance.

The INA-CBG's claim system which has tried to optimize costs is very much needed by the hospital, but other calculations that are more efficient must be applied by taking into account the capabilities or availability of existing resources so that the hospital does not depend on the government in its operations. The ABC system requires the availability of well-managed data that can be carried out by trained resources so that it becomes an obstacle for some hospitals that do not carry out standardized management. Increasing human resources is a big cost so that it becomes one of the obstacles to transforming to be more efficient in setting patient rates. This is what causes some hospitals even though they know the ABC efficiency is higher than the real calculation,

4.3. Calculation of Real Hospital Costs in Appendectomy Cases

Calculation of Real Hospital Costs in Appendectomy Cases In calculating the real hospital costs in appendectomy cases after being calculated, it is Rp. 24,410,905.00 which consists of a registration fee of Rp. 27,500.00, the doctor's check-up fee is Rp. 35,000.00, injection of Rp. 37,000.00, the infusion fee is Rp. 15,000.00, the laboratory fee is Rp. 1,150,000.00, 5-day ward accommodation costs Rp. 1,500,000.00, the ward administration fee is Rp. 145,000.00, the surgeon's visit fee is Rp. 2,250,000.00, the cost of visiting an anesthesiologist is Rp. 70,000.00, the cost of moderate wound treatment is Rp. 15,000.00, the cost of a chest X-ray and ECG is Rp. 290,000.00, the cost of hematology is Rp. 2,550,000.00, the cost of medical equipment is Rp. 782,000.00, the cost of medical services for appendectomy with a surgeon is Rp. 9,750,000.00, operating room costs Rp. 2,000,000.00, the cost of medicine and instrument services is Rp. 2,784,000.00, the cost of consumables is Rp. 1,010,405.00 so that the total real cost of appendectomy patients becomes Rp. 24,410,905.00.

In calculating the real costs of hospitals, it is indeed much different and not as detailed as in the calculation of unit costs which are calculated based on the activities or actions taken, so that in calculating the real rates of hospitals, it can be seen that the consumption of the highest costs is pharmaceutical costs of Rp. hospital costs are higher than pharmaceutical costs in unit cost calculations using the ABC method. According to the researcher, this is because at the real cost of the hospital the drugs used are drugs outside the DPHO, they tend to use non-generic drugs more and the drugs used are not in accordance with the clinical pathway. This is supported by the results of Hidayat's (2016) research on unit cost analysis of

appendectomy using activity based costing which says that the drugs given are in accordance with the applicable clinical pathway. Doctors' compliance in giving drugs in accordance with clinical pathways will greatly affect the quality of service and cost efficiency in hospitals.

IV. Conclusion

Based on the results of research and discussion that have been presented in the previous chapter, it can be concluded that:

1. The unit cost of appendectomy at Mitra Sejati General Hospital Medan using the activity based costing method is Rp. 21,763,871.7.
2. The real cost of appendectomy at Mitra Sejati General Hospital in Medan is Rp. 24,410,905.00.
3. There is a difference in the cost of appendectomy with the unit cost using the activity based costing method and by using real cost calculations at Mitra Sejati General Hospital Medan in 2020 with a cost difference of Rp. 2,647.034.7.

References

- Abdul Halim & Sham Kusufi. 2017. Theory of Concepts and Applications of Public Sector Accounting. Jakarta: Four Salemba.
- Agus Purwaji et al, Cost Accounting, Jakarta: Salemba Empat, 2016.
- Aldi, GP 2019. Analysis of the application of activity based costing in determining inpatient rates at the Robert Wolter Mongonsidi Hospital in Manado. Sam Ratulangi University, Manado.
- Ahmad, Kamaruddin. 2017. Management Accounting: Fundamentals of Cost Concepts and Decision Making. Jakarta: Rajawali Press
- Ashari., Muniar, Andi Yulia. 2016. Application of Expert System To Diagnose Digestive Diseases With Natural Treatment. Faculty of Engineering, University of Muhammadiyah Jakarta, November 8, 2016.
- Bahri, Syaiful. 2016. Introduction to Accounting. Yogyakarta: Andi.
- Biricik, S., Narci, H., Dündar, GA, Ayrik, C., & Türkmenoğlu, M. . (2019). Mean Platelet Volume and the Ratio of Mean Platelet Volume to Platelet Count in the Diagnosis of Acute Appendicitis. American Journal of Emergency Medicine
- Catur Sasongko (2016), Accounting An Introduction. Salemba Empat, Jakarta.
- Caroline & Kowalski, I. (2017). Nursing Care of Patients With Digestive System Disorders. Yogyakarta: New Library Press
- Craig, S., Brenner, BE 2017. Appendicitis.
- Indonesian Ministry of Health. Indonesia Health Profile 2015. Jakarta: Ministry of Health RI; 2016.
- Djen, Nuryanti. 2017. Cost Analysis and Clinical Outcome Overview of Appendectomy Patients of BPJS Kesehatan at RS Pku Muhammadiyah Yogyakarta January – December 2014. Pharmacy Study Program, Faculty of Mathematics and Natural Sciences, Islamic University of Indonesia, Yogyakarta.
- The World, Firdaus Ahmad, and Wasilah. 2018. Cost Accounting. Jakarta: Salemba Empat
- Fahmi, Irham. 2018. Introduction to Financial Management. Bandung: Alfabeta.
- Hidayat, AM, Pribadi, F., & Marwati, T. (2016). The unit cost analysis of appendectomy uses the activity based costing method. Journal of the Association of Muhammadiyah Lecturers Masters in Hospital Administration,
- Hery, 2016. Service and Trade Sector Accounting, First Printing. Jakarta: PT Grasindo.

- Kautsar and Mohammad Farid. 2016. *Management Accounting: A Tool for Measurement and Managerial Decision Making*. Print 1. West Jakarta: Permata Puri Media Index
- Kesumah, A. 2019. *Comparison of the calculation of the unit cost of medical services with conventional vs ABC methods* (Thesis, University of North Sumatra).
- Mardalena, Ida. (2017). *Nursing Care of Patients with Digestive System Disorders*. Yogyakarta: New Pustaka Press.
- Mustafa. 2017. *Financial Management*. Yogyakarta: CV. Andi Offset.
- Mulyadi. 2016. *Activity Based Cost System: Cost Information System for Cost Reduction*, Edition 6. UPP AMP YKPN. Yogyakarta
- Mostbeck, G., Adam, EJ, Nielsen, MB, Claudon, M., et al. (2016) How to diagnose acute appendicitis: ultrasound first. *Insights into Imaging*. [Online] 7(2), 255–263. Available from: doi:10.1007/s13244-016-0469-6.
- Nafarin, M. 2017. *Corporate Budgeting*. Edition three. Jakarta: Salemba Empat
- Nimmagadda, N., Matsushima, K., Piccinini, A., Park, C., Strumwasser, A., Lam, L., Inaba, K., & Demetriades, D. (2019). Complicated Appendicitis: Immediate Operation or Trial of Nonoperative Management? *American Journal of Surgery*, 217(4):713–717.
- Minister of Health Regulation Number 4 of 2018. *Hospital Obligations and Patient Obligations*.
- Podda, M., & Cillara, N. (2018). Appendicitis. *Encyclopedia of Gastroenterology* (2nd ed., pp. 104–109). Elsevier.
- Petroianu, A. (2016) Diagnosis of acute appendicitis. *International Journal of Surgery*. [Online] 10 (3), 115–119. Available from: doi:10.1016/j.ijssu.2012.02.006.
- Pramusinto, N.D., Daerobi, A., and Hartanto, D. (2020). Labor Absorption of the Manufacturing Industry Sector in Indonesia. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* Vol 3 (1): 549-561.
- Rasidin, Calundu. 2018. *Health Management*. Jakarta: Legal Media.
- Ross, Stephen A.; Randolph W. Westerfield; Bradford D. Jordan, Joseh Lim and Ruth Tan. 2016. *Introduction to Corporate Finance (Fundamentals of Corporate Finance)*. Global Asia Edition, Book 1. Jakarta: Salemba Empat
- Santika., Wiwik., Nur Ainun., Lela Radmasani. Effect of Early Mobilization on Intestinal Peristaltic Sounds in Post Op Appendectomy Patients at Royal Prima General Hospital Medan
- Salman, Kautsar Riza. 2016. *Cost Accounting*. Edition 2. Jakarta: Index
- Eldest & Rani. 2017. *Finger Clasp Relaxation Technique against Pain Intensity in Post Appendectomy Patients*.
- Susilowati, Lantip. 2016. *Proficient in Accounting for Service and Trade Companies*. First Printing. Yogyakarta: Kalimedia.
- Sujarweni, V. Wiratna. 2015. *Statistics for Business and Economics*. Yogyakarta: New Press Library.
- Sugiyono. (2017). *Quantitative, Qualitative, and R&D Research Methods*. Bandung: Alfabeta, CV.
- Sjamsuhidayat, R & Wim, de Jong (ed). 2017. *Textbook of Surgery*. Jakarta: EGC
- Tsai, HY, Chao, HC, & Yu, WJ 2017. Early Appendectomy Shortens Antibiotic Course and Hospital Stay in Children with Early Perforated Appendicitis. *Pediatrics and Neonatology*, 58(5):406–414.
- Widagdo., (2017). *Problems and management of children with abdominal pain*. Appendicitis (pp.49-52), Jakarta: Trisakti University
- Wiyono, Gendro and Kusuma, Hadri. 2017. *Advanced Financial Management Based on Corporate Value Creation First Edition*. Yogyakarta. UPP STIM YKPN.

- Zefri. 2016. The Effect of Quality of Medical, Paramedical and Medical Support Services on Inpatient Satisfaction at Harapan Bunda Hospital, Banda Aceh. Ocean University
- Zulia, H. Andri, W. 2020. Analysis of activity based costing system as an alternative for calculating inpatient service rates at Haji Medan General Hospital. Journal of Accounting Education. Volume 3. No. 2.