

# ANALYSIS OF MEDICAL EQUIPMENT PROCUREMENT PLANNING IN THE INPATIENT UNIT OF RSUD BOLIYOHUTO

Sri Nikmawaty Huntoyungo<sup>1)</sup>, Efendi Tilome<sup>2)</sup>,  
Imelda Mohamad<sup>3)</sup> and William Indra S. Mooduto<sup>4)</sup>

<sup>1,2,4)</sup> Universitas Bina Mandiri Gorontalo,

<sup>3)</sup> RSUD Boliyohuto Gorontalo Regency

E-mail: srinikma99@gmail.com

## ABSTRACT

This study aims to determine the process of medical equipment procurement planning in the Inpatient Unit of the Boliyohuto Regional General Hospital, Gorontalo Regency.

This research type is descriptive research with a qualitative approach. The data used are primary data and secondary data with data sourced from observations, interviews, and documentation. The informants in this research were 3 people who were directly involved in the process of medical equipment procurement planning in the inpatient unit of the Boliyohuto Regional General Hospital.

The results of the research showed that the planning process for medical equipment needs had several obstacles in reducing the number of medical devices because the available budget was insufficient, Besides that one of the obstacles is the hospital does not yet have its procurement officer, the procurement process is not fully maximized because it must be adjusted to the existing budget and adjusted to the number of patient visits, so, only focus on urgent needs, this causes the availability of medical equipment not yet fully by class D hospital standards.

**Keyword:** planning, procurement, medical equipment, inpatient unit

## INTRODUCTION

The hospital is one of the health facilities that provides complete individual health services and provides inpatient, outpatient and emergency services to community and has a very important role in accelerating the improvement of public health status [6].

Hospitalization is a form of treatment or rehabilitation process by professional health service personnel in patients suffering from a disease by being hospitalized in an inpatient room according to the type of disease experienced by the patient. Inpatient facilities are provided by health service

providers and run systematically by medical and non-medical personnel [11].

Procurement of medical devices is one of the important elements to support efforts to develop health services as has been explained in Law No. 44 of 2009 which guarantees the availability of equipment is a hospital, therefore the medical equipment provided will affect the quality of health services, including the provision of medical equipment. patient satisfaction, then the availability of medical devices is an effort to cure patients. So that medical equipment should be adequate with the condition and function and physical health of

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medical devices in good condition can also support health services in achieving this, good governance is needed in the relevant agencies starting from the source of funds and planning for the procurement of medical devices.

Health equipment is an aspect that plays a significant role when providing health services for the entire community, equipment will run well if used correctly and maintained according to technical procedures on a regular and continuous basis so that its use is more effective and efficient in accordance with its capabilities [4].

The provision of health service facilities is an obligation from the central government to the regional government, this is in accordance with the provisions in Law Number 36 Year 2009 concerning health that the government is obliged to quantity, type and availability of health service facilities along with granting operating permits and reviewing the size of the place, health needs, quantity with community circulation, disease patterns, utilization, social functions, and energy when using technology for the community in achieving the highest degree of health [5].

Based on ASPAK data, the percentage of the availability of medical devices for internal inpatient rooms is only about 43%, so even in the children's room there are only 19% and the obstetric room there are 21%. As well as several supporting facilities such as ICU rooms, radiology, laboratory sets, operating rooms which are temporarily under construction and blood banks/blood transfusion units are not yet available. This needs to be controlled by the hospital because basically the hospital requires supporting examinations for diagnosis purposes.

As a result of the lack of completeness of medical equipment, it will slow down the service process for

patients. This will affect the quality of hospital services. Later, many patients will be referred to other hospitals. Information was obtained that there were 44 inpatient visits and 37 patients referred between 2020.

Equipment that is not functioning, the number of medical devices that are less causes many patients to be referred and the quantity of patient visits will decrease. This is because the planning process has not been carried out optimally [10].

Budget important element in planning the procurement of medical equipment in hospitals without a budget then planning and procurement cannot be realized properly [12].

### RESEARCH METHODS

Type and approach which used in this study are descriptive qualitative. This research will be held in April-May 2021.

The data used are primary data and secondary data where the primary data is obtained through interviews and then the data that has been collected will be analyzed. Then secondary data was obtained through various reading sources such as books, journals and articles related to medical equipment procurement planning in the inpatient unit.

The data collection method used in this study was observation which was carried out by observing the object under study, then analyzed and recorded the findings at the research site and then used in-depth interviews with respondents consisting of Planning Staff, Procurement Officers at the Gorontalo District Health Office and the person in charge of the Boliyohuto Hospital Inpatient who gives questions that have been prepared in advance. Some of the questions contained in the interview sheet prepared by the researcher in order to obtain data related to medical equipment procurement

planning in the inpatient unit of RSUD Boliyohuto, the tools used in the interview process are recordings, note sheets and cameras and are supported by documentation such as the results of the picture/pictures.

The data analysis technique used in this research is data reduction which is carried out by sorting, centralizing, simplifying and focusing the data found in the field based on notes made by researcher from interviews with data sources/informants [2].

The next stage after data reduction is data display where data can be presented in the format of diagrams, tables, graphs. The process of presenting data, researchers can receive input from other researchers so that the data can be arranged clearly and more easily understood [2].

The last stage is drawing conclusions. The conclusions made by researchers are only temporary where researchers can accept suggestions from others. Conclusions made by researchers can change if researchers find new evidence in carrying out research at the location. So, the researcher gets a convincing final conclusion [2].

The validity of the data used in this study is a credibility test which is to test the trustworthiness of a research data that has been processed so that the results of the research carried out can be trusted and are not in doubt [2].

In the research, the credibility of the data used is triangulation which is carried out by checking the data obtained from various data sources at various times and then supporting materials (references) are used as supporting tools in proving the data obtained. Then the data obtained can be proven with supporting materials such as photographs during the research and other important documents [2].

Next, do a member check with the aim that the data obtained by researchers

in the field is valid or in accordance with what is given by the resource person [2].

In addition, there is a transferability test which is an external validity test in qualitative research, transferability tests are carried out to measure the degree of confidence in the results of research that has been carried out by researchers and can be applied to the research subject where the data is obtained. Then the dependability test is carried out by checking all research processes and confirmability test, also called objectivity test, which are carried out to test how many parties accept the results of the research that has been done. The research results are related to the research process that has been carried out by the researcher. The process and results must be balanced so that there is no doubt in the research [2].

## **RESEARCH RESULTS**

### **Budget**

Based on the results of interviews with informants that the sources of financing to carry out the procurement of medical devices include: sourced from the local government, namely DAU (General Allocation Fund) and sourced from the central government, namely DAK (Special Allocation Fund), DID (Regional Incentive Fund) and PEN (National Economic Recovery).

The budget especially from the General Allocation Fund (DAU), the hospital proposes the need for medical devices to the local government but before giving the budget the government re-verifies the comparison between hospital income and the budget that will be issued by the local government.

Then for special allocation funds, regional incentive funds and national economic recovery funds in planning for the procurement of medical devices, hospitals propose needs to the central government through an application and

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re-verified by looking at the condition of hospitals and human resources, especially users, whether they are adequate or not. before providing a budget, it is adjusted in advance to the condition of the hospital in terms of the building, the existing room, especially for placing medical devices and the number of human resources as users.

### **Planning Process**

Based on the results of interviews with informants that the planning of medical devices at the Boliyohuto Hospital is carried out once a year at the end of the year and carried out starting in 2020 but is still carried out by the Gorontalo district health office considering the hospital began operating in February 2020 and at that time the hospital had not yet there is own planning staff. And for this year 2021, the hospital already has planning staff and has planned medical devices and medical BHP for inpatient units, outpatients, HCU (High Care Unit) and building construction which includes determining the needs, types, specifications and number of medical devices needed. needed and adjusted to the priority scale. However, some of the available medical devices are still in the process of being delivered. Then the hospital uses annual planning (work plan) and five years (strategic plan).

Then the involvement of the authorities in the planning process for the procurement of medical devices, namely the person in charge of the inpatient room, the person in charge of the outpatient room, and the emergency room as well as specialist doctors. In planning the need for medical devices, especially in inpatient units, the Trisna application is used which is included in the planning document and fixed procedures that are tailored to the needs of the user. On the Trisna menu there are tools that can be held and will be shown to inpatients and

that is the proposal then submitted to the Gorontalo district health office and analyzed according to the existing budget.

However, the problem when procuring tools is that there is an increase in the price in the e-catalog system so that the amount needed will be reduced because the available budget is not enough to buy all the tools needed at the time of planning. In addition, one of the obstacles for the hospital is that it does not have its own procurement official because now it is still joining the procurement official at the Gorontalo district health office. The hospital especially the planning staff really hopes that there will be a procurement official because this will make it easier to determine needs.

### **Procurement Process**

Based on the results of interviews with informants that the procurement of medical devices in 2020 and 2021 which are still partially available, due to the Boliyohuto hospital including a new hospital it will not necessarily be fulfilled as a whole, but still focuses more on urgent needs and pays more attention to the number of patient visits. Then the purchase of medical devices will be adjusted to the available budget and other medical devices are still in the process of being delivered.

In the process of medical equipment procurement for Boliyohuto Hospital in proposing a request for needs to the Gorontalo district health office through the approval of the PPK (Commitment Making Officer) then the PPK makes a Self Estimated Price (HPS) then it is given to the procurement official who will facilitate the process until an Order (SP) is issued. then the PPK will make a contract document and a work order with a determination of the execution time after the goods have been entered will be checked by the inspection committee

who will see whether the specifications are appropriate or not then for the PPTK (Technical Implementing Officer of Activities) functions related to payment problems.

Then the purchase of medical devices has gone through the e-catalog system or electronic information system in which it contains several lists, types, technical specifications and prices of goods.

Then for the need for the procurement of medical devices, even though the process and implementation time are in accordance with what was planned, the medical devices provided are still less than the actual needs, this is influenced by the available budget and the soaring price of medical devices.

#### **Availability of Medical Equipment**

According to the results of interviews and observations, it was found that the condition of medical devices at the Boliyohuto Regional General Hospital was in good condition and suitable for use, but their availability was still lacking. This is based on ASPAK data where the percentage of the availability of medical devices for internal medicine inpatient rooms is only about 43%, as well as in the children's room there are only 19% and the obstetric room there are 21%, which should be available must be 50% even though it has not been fully fulfilled.

With the lack of medical devices will greatly affect the quality of service, the availability of medical devices is very important with complete medical devices will have a significant influence on patient satisfaction and support the level of achievement of effective and efficient disease management.

The causes of the lack of medical devices include the planning process in accordance with the needs but during the procurement process the number of medical devices that were previously in

accordance with the needs will be reduced because seen from the available budget it is not sufficient for the procurement of certain medical devices because the purchase has gone through the e-catalog a system where price changes occur every 2 years therefore the goods that have been submitted do not necessarily exist and the user must make a request for the goods again in the following year.

## **DISCUSSION**

### **Budget**

The source of the budget in this case is included in the supporting factors that are very important to carry out the management function. The hospital budget is a plan of activities that must be prepared in detail that is all hospital activities apply in the future.

Based on the results of the study that the sources of financing to carry out the procurement of medical devices include: sourced from the local government, namely DAU (General Allocation Fund) and sourced from the central government, namely DAK (Special Allocation Fund), DID (Regional Incentive Fund) and PEN (National Economic Recovery).

The budget especially from the General Allocation Fund (DAU), the hospital proposes the need for medical devices to the local government but before giving the budget the government re-verifies the comparison between hospital income and the budget that will be issued by the local government.

Then for special allocation funds, regional incentive funds and national economic recovery funds in planning for the procurement of medical devices, hospitals propose needs to the central government through an application and re-verified by looking at the condition of hospitals and human resources, especially users, whether they are adequate or not. before providing a budget, it is adjusted

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in advance to the condition of the hospital in terms of the building, the existing room, especially for placing medical devices and the number of human resources as users.

In the context of implementing health development, there must be a continuous provision of health costs in sufficient quantity, allocated fairly and utilized in an efficient and effective manner [7].

Basically, the authority and those who are responsible for preparing and implementing the budget are the highest leaders in the organization because the leader is more aware of all organizational activities. But the preparation can be delegated to the administration and budget committee.

Generally for small organizations whose activities are not too broad, budgeting is given to the administration section, then for large organizations using a budget committee where the activities are so broad and have various kinds and different scopes.

At the budget committee a discussion is held regarding the activity plan, so the costs obtained are a joint agreement that is in accordance with the facilities as well as the ability of each section systematically. This mutual agreement is needed because in its implementation it will be supported by all parties in the hospital. Budget preparation is included in the budget plan which will be discussed again with the hospital leadership.

Planning and determinants of needs are studied more deeply in order to adjust to the size of the budget than the existing one. And then if the planning and determinants of needs have been rechecked and the advantages and disadvantages are known and have been carried out on the cost plan, the availability of the budget can no longer be disturbed except in a state of urgency.

Financing rules that are clear, precise, simple and uncomplicated will really help activities [9].

### **Planning Process**

Planning is a process to explain goals and determine the activities to be carried out, specifically planning is an activity that will plan logistics needs whose implementation is carried out by all users and is stated according to the rules that apply to each organization [9].

Planning can be seen from the level of the plan, namely: master planning is a plan that prioritizes in terms of policies and has a very broad scope and applies in the long term. While operational planning is a plan that prioritizes in terms of guidelines where its implementation is used for guidance when carrying out activities [1].

Based on the results of the study that the planning of medical devices in Boliyohuto Hospital Based on the results of interviews with informants that the planning of medical devices at the Boliyohuto Hospital is carried out once a year at the end of the year and carried out starting in 2020 but is still carried out by the Gorontalo district health office considering the hospital began operating in February 2020 and at that time the hospital had not yet there is own planning staff. And for this year 2021, the hospital already has planning staff and has planned medical devices and medical BHP for inpatient units, outpatients, HCU (High Care Unit) and building construction which includes determining the needs, types, specifications and number of medical devices needed. needed and adjusted to the priority scale. However, some of the available medical devices are still in the process of being delivered. Then the hospital uses annual planning (work plan) and five years (strategic plan).

The strategic plan is essentially a planning document in the organization or

institution that determines the direction that focuses on the results to be achieved within a period of 1-5 years and is used as a basis for decision making in allocating capital and human resources to achieve the desired goals.

Then the involvement of the authorities in the planning process for the procurement of medical devices, namely the person in charge of the inpatient room, the person in charge of the outpatient room, and the emergency room as well as specialist doctors. In planning the need for medical devices, especially in inpatient units, the Trisna application is used which is included in the planning document and fixed procedures that are tailored to the needs of the user. On the Trisna menu there are tools that can be held and will be shown to inpatients and that is the proposal then submitted to the Gorontalo district health office and analyzed according to the existing budget.

However, the problem when procuring tools is that there is an increase in the price in the e-catalog system so that the amount needed will be reduced because the available budget is not enough to buy all the tools needed at the time of planning. In addition, one of the obstacles for the hospital is that it does not have its own procurement official because now it is still joining the procurement official at the Gorontalo district health office. The hospital especially the planning staff really hopes that there will be a procurement official because this will make it easier to determine needs.

Planning is a structured method for decision making with activities to be carried out in the future. Planning is carried out, namely to formulate a series of activities in achieving predetermined goals [12].

### **Procurement Process**

Procurement is an activity carried out in selecting a procurement provider which is carried out by the procurement committee to meet user needs [3].

The procurement of medical devices in question is to meet the needs of hospitals whose function is to treat each patient.

Procurement of goods and services is an activity where the process begins with planning needs until the goods/services are obtained. The procurement of government goods/services is a very important element in the implementation process of development and is based on the principles of efficiency, effectiveness, openness, transparency, fairness or non-discrimination and accountability [8].

Procurement of medical devices is carried out by the procurement committee through the approval of the PPK (Commitment Making Officer) at the Gorontalo district health office. In the process of purchasing medical devices already using information technology and electronic transactions. In the process of procuring government medical devices electronically, in this case, it will increase and ensure efficiency, effectiveness, accountability and transparency in the spending of state money.

The service available in the SPSE (Electronic Procurement System) is e-tendering, which is the steps in selecting a provider of goods and services that is carried out openly and is followed by all providers of goods and services registered in the electronic procurement system by submitting a one-time offer. at the time specified and e-purchasing, namely the steps in purchasing goods and services through the e-catalog system. With the e-purchasing of medical device products, it can be more efficient and transparent.

From the results of the study, it was found that the procurement of medical devices in 2020 and 2021, which were



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still partially available due to the Boliyohuto hospital including a new hospital, would not necessarily be fulfilled as a whole, but still focused more on urgent needs and paid more attention to the number of patient visits. Then the purchase of medical devices will be adjusted to the available budget and other medical devices are still in the process of being delivered.

In the process of medical equipment procurement for Boliyohuto Hospital in proposing a request for needs to the Gorontalo district health office through the approval of the PPK (Commitment Making Officer) then the PPK makes a Self Estimated Price (HPS) then it is given to the procurement official who will facilitate the process until an Order (SP) is issued. then the PPK will make a contract document and a work order with a determination of the execution time after the goods have been entered will be checked by the inspection committee who will see whether the specifications are appropriate or not then for the PPTK (Technical Implementing Officer of Activities) functions related to payment problems.

Then the purchase of medical devices has gone through the e-catalog system or electronic information system in which it contains several lists, types, technical specifications and prices of goods.

Then for the need for the procurement of medical devices, even though the process and implementation time are in accordance with what was planned, the medical devices provided are still less than the actual needs, this is influenced by the available budget and the soaring price of medical devices.

Medan Haji Hospital does budgeting according to needs and not all items needed can be provided because the budget given is limited and the funds

themselves come from APBN with APBD [9].

### **Availability of Medical Equipment**

Medical equipment is a part that accommodates in carrying out preventive and curative, the absence of medical devices so that it will affect the quality of services provided to patients [12].

Hospitals have guidelines from the ministry of health for the fulfillment of infrastructure facilities that comply with hospital classification standards. Boliyohuto Hospital is a class D hospital which has an obligation to fulfill medical devices in accordance with classification standards.

Based on the results of the study that the condition of the medical equipment at the Boliyohuto Regional General Hospital was in good condition and suitable for use but its availability was still lacking. This is based on ASPAK data where the percentage of the availability of medical devices for internal medicine inpatient rooms is only about 43%, as well as in the children's room there are only 19% and the obstetric room there are 21%, which should be available must be 50% even though it has not been fully fulfilled.

With the lack of medical devices will greatly affect the quality of service, the availability of medical devices is very important with complete medical devices will have a significant influence on patient satisfaction and support the level of achievement of effective and efficient disease management.

The causes of the lack of medical devices include the planning process in accordance with the needs but during the procurement process the number of medical devices that were previously in accordance with the needs will be reduced because seen from the available budget it is not sufficient for the procurement of certain medical devices



because the purchase has gone through the e-catalog a system where price changes occur every 2 years therefore the goods that have been submitted do not necessarily exist and the user must make a request for the goods again in the following year.

The lack of availability of medical devices is caused by the planning process that has not been maximized, it is necessary to do good and correct management and planning so that it can guarantee the implementation of quality health services for patients [10].

### CONCLUSION

Based on the results of research and discussion, it can be concluded as follows:

1. Planning for medical equipment needs had several obstacles in reducing the number of medical devices because the available budget was insufficient, Besides that one of the obstacles is the hospital does not yet have its procurement officer.
2. In budgeting not everything will be approved because there are several aspects that are taken into consideration, this is seen from the income aspect and the condition of the hospital in terms of the building, the existing room especially for placing medical devices and the number of users of medical devices.
3. The procurement process is not fully maximized because it must be adjusted to the existing budget and adjusted to the number of patient visits so only focus on urgent needs because considering the status of the hospital which is still a new hospital.
4. The availability of medical equipment at the Boliyohuto Hospital is still incomplete, not yet

fully in accordance with the standards of class D hospitals.

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