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# Evaluation of Drug Planning and Procurement at the Pharmacy Installation of Regional General Hospital Dr. M. Haulussy Ambon

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## Abstract

Pharmacy Installation is part of the hospital responsible for implementing drug management which includes selection, procurement, distribution and use of the drug. This research aims to evaluate the planning and procurement of medicines in Dr. M. Haulussy Ambon Hospital Pharmacy Installation. Research uses descriptive design with retrospective and concurrent data retrieval. Retrospective data is data obtained by tracing the previous year's documents (secondary data) in 2018 including financial statements, drug planning and use reports, drug procurement reports, and invoices. Retrospective data retrieval is carried out on, the percentage of conformity between drug planning and the reality of use for each drug. Concurrent data is data obtained at the time of research or is primary data with in-depth interviews with IFRS officers as well as discussions with officers/employees related to drug management. The results showed the Procurement stage of the procurement of funds for each drug item already met the standards. The suitability of planning with the wear reality for each item is not in accordance with the standard (less than 100%). It is expected to cooperate well with related parties, especially pharmaceutical installations in drug planning and management so that the use of existing funds can be more efficient and effective.

**Keywords:** *Planning, Procurement, Medicine, Pharmaceutical Installation, Hospital.*

## Introduction

The hospital is a health care institution for the community with its own characteristic<sup>1-5</sup>. Hospitals are heavily influenced by the development of health sciences, technological advances, and socioeconomic lives of people who must still be able to improve quality

and affordable services by the community in order to realize the highest degree of health. One of the activities in the hospital to support quality health services is pharmaceutical services. Pharmacy services in hospitals are organized by the installation of hospital pharmacies that have two main functions, namely, managerial functions and professional functions.<sup>6-7</sup>

Annual drug planning with purchases, fluctuations in drug use and government policies are changing. Inefficient management of the drug causes the level of availability of drugs to be reduced, the emptiness of the drug, the number of drugs that accumulate due to inefficiencies of drug planning, as well as the number of expired/damaged drugs due to poor distribution system so as to impact the inefficiency of budget/cost use<sup>8,9</sup>.

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he development of the pharmaceutical world as well as the demands of patients and the public on the quality of pharmaceutical services require a change from product oriented to patient oriented<sup>10</sup> So that services to patients must be considered ranging from basic elements or supporting elements so that patient satisfaction can be fulfilled well in order to achieve the goal of improving quality of life. In addition, in order for the agency to get a good outcome as a result of maximum service<sup>11</sup>.

The importance of drug management in pharmaceutical installations in achieving optimal health services in hospitals If the hospital is unable to plan and implement drug management properly then the hospital is not able to reach the point of success. The failure of logistics management will decrease the quality of hospital services so that patient satisfaction will also decrease<sup>12</sup>. The non-smooth management of the drug can have a negative impact on the hospital<sup>13</sup>.

Dr. M. Haulussy Ambon Hospital is a type B hospital with type Of Non-Educational Hospital in accordance with the Decree of the Minister of Health No. 1069/Menkes/SK/XI/1992 which in PERDA No.06 of 1994 dated December 22, is the most complete hospital in Maluku so that it becomes the only referral hospital in Maluku Province. Therefore, services at Dr. M. Haulussy Hospital should be very considered including services provided by inpatient and outpatient pharmacy installations, including services to patients of BPJS (Social Security Regulatory Agency) Health who have cooperated with the government, especially Dr. M. Haulussy Ambon Hospital. With the smelting of ASKES and JAMKESMAS into BPJS on January 1, 2014, coupled with the expansion of BPJS program services to the general public who want to have health insurance, more and more BPJS participants must be served in pharmaceutical installations<sup>14</sup>.

One of the important components of supporting the achievement of the hospital's goal in providing quality health services<sup>15-17</sup>. The quality of drug management, where the management of medicine in the hospital is the task and responsibility of the installation of hospital pharmacy with the aim of organizing professional drug management activities based on pharmaceutical procedures and professional ethics. Drug management based on applicable rules and standards, evaluating and providing quality services, conducting supervision based on applicable rules, conducting research and development in the field of pharmacy and method

improvement, and facilitating and encouraging the formulation of hospital treatment and formulary<sup>18</sup>.

According to Quicket al (2012) the drug management cycle covers four stages, namely: selection, procurement, distribution and use. Drug management at each stage in this cycle of drug management is interconnected which must be managed properly and organized in order for activities to run properly and support each other so that the availability of medicines can be guaranteed to support health services and become a potential source of hospital revenue<sup>19</sup>

Related to the above, in general there are some problems related to drug management in The Pharmacy installation of Dr. Regional General Hospital. M. Haulussy Ambon year 2016, among others the percentage of drug availability has not reached the indicator of availability of drugs set for hospital accreditation standards namely 80%, found expired/damaged drugs, high demand for fickle types of drugs from prescription authors, delay sending drugs from suppliers, high copy of prescriptions, not to the maximum function of pharmaceutical committee and therapy in developing policy and evaluation of drug management thus affecting the process of planning and procurement of drugs in Hospital Dr. M. Haulussy Ambon. The purpose of this research is to evaluate the process of planning and procurement of drugs at Dr. M. Haulussy Ambon Hospital.

## Materials and Method

The study used a descriptive design with retrospective and concurrent data retrieval. Retrospective data is data obtained by tracing the previous year's documents (secondary data) namely 2018 including financial statements, planning and drug use reports, drug procurement reports, and invoices. Retrospective data retrieval is carried out on, the percentage of conformity between drug planning and the reality of use for each drug. Concurrent data is data obtained at the time of research or is primary data with in-depth interviews with IFRS officers as well as discussions with officers/employees related to drug management.

## Result

In-depth interviews conducted by researchers to informants at Dr. M. Haulussy Ambon Hospital as the main data retrieval technique supported by interview guidelines. What is curious in this study is

how the management of the drug in the Pharmaceutical Installation of Dr. M. Haulussy Ambon Hospital has been implemented which includes the stages of planning and procurement.

At the planning stage of pharmacy installation the hospital uses consumption method for the drug planning process, while for the procurement of drugs is carried out by procurement directly according to the needs ordered directly to the supplier. In this case the supplier already has cooperation with the hospital and that provides a lower price than other suppliers. The

efficiency of drug management at this stage is measured using several indicators, among others: Percentage of capital/funds available with the overall funds needed for drug procurement.

In this indicator can be seen whether the allocation of available funds is sufficient or not to meet the needs of the purchase needs of hospital patients' drug needs, by limiting the total allocation of funds provided with the real need for funds needed for the purchase of medicines. Data is obtained retrospectively. The percentage of funds available with the required is presented in table 1.

**Table 1. Percentage of available capital/funds with total funds required for drug procurement**

Description	Total Value (IDR)	Fund (%)	Score
			Standard (%)
The amount of funds required	22,506,097,800.00	85	100
Available funds	19,149,270,000.00	15	
Amount of Funds Required	3,356,827,800.00	100	

Source: Secondary data RSUD Dr. HM Haulussy Ambon

Table 1 shows the percentage of hospital funding provided to IFRSUD Dr. H. M. Haulussy is 85%. Based on the results of interviews with informants about the planning and procurement stage about the percentage of capital/funds available with all the funds needed for drug procurement. Here's an excerpt from the interview:

“Procurement of medicines and BHP handled directly by the Hospital” (RT, 58 Years)

“The first fund. If a special method does not exist, it is ordered as needed and the hospital procurement is adjusted to the hospital planning made by the hospital planning department”. (RT, 58 Years)

“Obviously not enough because the funds are lacking, so it's right that the drug order is tailored to my needs and has to go through i can just order medicine” (RT, 58 Years)

“The drug procurement budget has so far been adjusted to the proposal of the planning department, Of course not enough to meet the drug purchase budget” (DR, 47 Years)

“Yes, because it is often cut during budget discussions” (SA 49 Years)

Percentage of planning suitability with the wear reality for each drug item. The purpose of the indicator of planning conformity with the reality of use is to know the suitability between the procurement of drugs done in the hospital and the reality of the existing drug can be known with certainty. Observations are made by taking data on the number of drug items in The Pharmaceutical Installation of Dr. H. M. Haulussy Ambon Hospital in 2018 compared to the number of drug items that are in accordance with the planning. The percentage of suitability of drug items with planning can be seen in table 2

**Table 2: Percentage of planning suitability with actual use for each drug item**

Information	Score	Score Standard (%)
Number of drug items in planning 2018	358	
Number of medicinal items according to actual use	340	
% Compatibility of available medicinal items with actual use	94.7	100

**Source:** Processed secondary data, 2020

Table 2 shows that the number of drug items in IFRS RsUD Dr. H. M. Haulussy Ambon listed is 358 items, while the number of drug items contained in the reality of use is 340 items, and the number of drug items not included in the procurement of 18 items. From the observations made the percentage of conformity between the procurement of drugs carried out by IFRS Hospital Dr. H. M. Haulussy Ambon with the reality of pake is 94.7%. The percentage result obtained is good enough, but it is still said not to be in accordance with the standard stipulated in Pudjaningsih (1996) which is 100%, so it is necessary to strengthen the use of hospital formulary and implementation priorities by the hospital management. Because the accuracy of drug planning based on formulary greatly affects the function of the budget.

Based on the results of interviews with informants about the planning and procurement stages about the percentage of planning suitability with the reality of use for each drug item. Here's an excerpt from the interview:

*“The data on the needs of the first drug from the pharmacy first that I checked, if it was appropriate i just submitted to the planning to be processed and matched with financial condition. so can't order drugs haphazardly without my consent” (RT, 58 years old)*

*“First of all, the proposed planning of medicines and consumables from pharmaceuticals is put into our section and then processed.” (SA, 49 Th)*

*“The one who devised the drug needs plan was my staff in the warehouse because he knew in and out of medicine. Which drugs are widely used and underused. Selection is conducted by the Therapeutic Pharmacy Committee but is not involved in planning and procurement” (PB, 38 Years)*

## Discussion

Researchers found that the funds allocated for the

purchase of drugs were not all used for the purchase of drug needs but also for non-medicinal, e.g. the purchase of laboratory reagents, radiological materials, as well as consumables that turned out to spend nearly 70% of the total funds on existing drug purchases. This causes the allocation of drug purchase funds to decrease. This problem may not occur if the allocation of existing funds is all only for the purchase of the drug and is not divided by purchases other than the drug. Thus, it is hoped that the need for a planned drug purchase fund can be sufficient for patient services. Other research results in accordance with similar research conducted by Costa (2016) at Ungaran Hospital obtained a percentage of the provision of funds by the hospital to ungaran hospital pharmacy installation for drug procurement is 100%<sup>20</sup>.

The installation of pharmacy is a revenue center in the hospital, therefore the function of the budget is one of the important basic data to be known in the planning of the supply of drugs both of type and quantity so that the drug manager must be involved to the maximum in the discussion of the budget and allocation of drug procurement funds<sup>7</sup>. When viewed from the results of this study, the funds provided are standardized at 36.69% but still insufficient because the value of the needs is higher than the value of the allocated funds and this fund is also included for the purchase of reagents from laboratories, rontgen materials, and consumables. So it's not purely just for the purchase of drugs.

Percentage of capital/funds available with the overall funds needed for drug procurement. The results obtained in this study are 85%. This is not in accordance with the Standard in Pudjaningsih which is 100%. In accordance with information from the Director of Dr. M. Haulussy Hospital that the amount of funds obtained so far is not sufficient to meet all the needs of medicines in the hospital, so many medicines that have been planned cannot be purchased or medicines forced to be reduced in number from those already planned to meet all needs other than medicines.

The increase in the efficiency of the percentage of capital/drug procurement funds in Dr. H. M. Haulussy Ambon hospital can be done by selectively planning the needs of the drug with correction referring to ven method i.e. classifying drugs based on (vital, essential and non-essential), ABC analysis method, adjustment of consumption method with epidemiological method based on disease pattern, data on number of visits as well as frequency of disease.

Other research results are in accordance with similar research conducted by Costa (2016) in the hospital. Ungaran obtained the percentage of the provision of funds by the hospital to the pharmaceutical installation of Ungaran hospital for the procurement of drugs is 100 %<sup>20</sup>, while Mompewa (2019) in Poso Pharmacy Installation of Central Sulawesi Province is 89.31%<sup>21</sup>, Mahdiyani et al (2018) that the percentage of the allocation of drug procurement funds in Muntilan Hospital Pharmacy Installation, in 2015 amounted to 26.13% and in 2016 amounted to 27.57%<sup>22</sup>.

From observations made by researchers at Dr. M Haulussy Ambon Hospital, researchers found that the funds allocated for the purchase of medicines were not all used for the purchase of drug needs but also for non-medicinal, e.g. the purchase of laboratory reagents, radiology materials, as well as consumables that apparently spent almost 70% of the total funds purchasing existing drugs. This causes the allocation of drug purchase funds to decrease. This problem may not occur if the allocation of existing funds is all only for the purchase of the drug and is not divided by purchases other than the drug. Thus, it is hoped that the need for a planned drug purchase fund can be sufficient for patient services.

Percentage of planning suitability with the wear reality for each drug item. In this study, the results were obtained by 94.7 %. This indicates that the percentage of planning conformity with the reality of use for each drug item in the Pharmaceutical Installation of Dr. M. Haulussy Ambon Hospital has not been in accordance with the standard of 100%. The results of this study do not correspond to some similar studies namely by Endarti that the comparison between the number of drug items in the planning and the number of drug items in the reality of use obtained results for 2015 by 104.08% and in 2016 there was a decrease with a result of 80.80%. Research conducted by Mompewa amounted to 96.28% at Poso Central Sulawesi Hospital Pharmaceutical Installation<sup>21</sup>.

This is influenced by the allocation of funds provided by hospitals that do not meet the needs or are still lacking. Due to the lack of funds, it has an impact on cutting the number and items of the drug held. Another factor that affects the ineffectiveness of planning with the reality of using the drug is the addition of certain drug items outside of the drug items that have been planned in the middle of the budget year to answer the needs of medical services not to the maximum application of the drug needs plan system is also affected by the absence of planning system based on information management system technology, the system used is still a manual method. prescribing patterns by doctors have not been consistent because of the lack of clinical pathways.

Another thing that quite affects the design of drug planning with the reality of use is if there are new cases of disease that have not been prepared for drugs and are not included in the hospital formulary. Cases like this cause prescribing to change and additional funds are needed to meet treatment needs. In addition, clinical pathway is also not fully run so the prescribing of the drug has not been as expected. This should be of concern to the hospital management to implement clinical pathways in order for the prescribing of the drug to be controlled<sup>23,34</sup>

## Conclusion

Based on the results of research conducted at Dr. H. M. Haulussy Ambon Hospital Pharmacy Installation on drug planning and management can be concluded that the procurement stage of procurement fund allocation of each drug item already meets the standards. The suitability of planning with the wear reality for each item is not in accordance with the standard (less than 100%). It is expected to cooperate well with related parties, especially pharmaceutical installations in drug planning and management so that the use of existing funds can be more efficient and effective

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**Source of Funding:** Self

**Conflict of Interest:** Nil

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