

Analysis of Drug Logistics Planning at Medical Management Agency in Ambon City Health Office (Qualitative study)

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Abstract

In health services, the drug can save lives and improve health quality. So the provision of essential medicines is mandatory and requires government support at all levels, both central, provincial and Regency/city. The existence of such support can be activities, budgets and commitments. The purpose of this research is to know the system of drug planning in the technical implementation Unit of the Regional Office of Medicine management in Ambon City Health office. This type of research is a qualitative study. Data collection is done through in-depth interviews, observation and document study. Information collected from 6 people who are involved in the management of drugs in the technical implementation Unit of the Regional Office of the Department of Medicine of the city Health office in Ambon. The results showed that drug planning uses a special team with the calculation of drug needs using method of consumption. The emptiness and excess medication are still common due to the change in public health centers affecting the drug prescribing patterns. Therefore, it needs a good coordination between the planning team in the technical implementation Unit of the regional office of the District Health Care office in Ambon City with a doctor at the Public health center in the area to be obedient in writing prescriptions according to the medication that has been ordered.

Keywords: *Planning, medicine, Kota Ambon, Unit of the Regional Office of the Department of Medicine*

Introduction

In Indonesian, in 2018 there are 89.69% of pharmacy installation of District/city that has been conducting management of drug and vaccine management as per standard. Such use has fulfilled the target of 2018, which is 75%. It is known that most of the provinces have fulfilled the target of 75% which is 30 provinces and there are 18 provinces that have reached a target of 100%. There are 4 provinces that have not yet reached the target of the Renstra 2018 is Bengkulu Province (70.00%), Maluku (45.45%), West Papua (38.46%) and DKI Jakarta (0.00%). In particular, DKI Jakarta province from 6 installation of Pharmacy district/city does not

directly conduct drug and vaccine management as per standard but management and distribution is carried out directly on the District pharmacy installation through the Fund of State Budget income and expenditure¹. The availability and quality of the drug in the regional technical implementation Unit of the Center for Drug Management of the city Health Department in Ambon is very influential in the service of providing medicine to people who are sick or who need without any changes in the quality of the drug

Based on the results of the study of documents obtained the type of drug item expired in 2016 as much as 141 type of drug with the number of drugs including the type of paracetamol tablets 500 mg as much as 158,525. In the year 2017 the type of drug is as many as 206 types of drugs with the most numerous drugs including the type of Vitamin B complex tab as much as 391,566. The

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year 2018 as many as 121 types of drugs are expired and the most widely included types of Thiamine (Vitamin B1) tablets 50 mg as much as 767,483. Based on the problems found, researchers want to know the planning of drug Logistics in the Unit of the Center for Drug Management of the city Health Office in Ambon.

Materials and Method

The type of research used in this research is a type of qualitative study. Data collection is done through in-depth interviews, observation and document study. Information collected from 6 people who are involved in the management of drugs in the technical implementation Unit of the regional Health Care office of the Ambon City Department of Medicine. To ensure the diversity of data is used triangulation technique

Results

This research was conducted in the technical implementation Unit of the Regional Medical Management Hall in Ambon City Health office in January to February 2020. This research is a qualitative study intended to determine the management of drug management in the regional technical implementation Unit of the district Medical Management center in Ambon. The study used in-depth interview techniques, document study and observations. The variables are researched namely the process of drug planning. The informant involved in the research is the head of pharmaceutical installation, pharmacist of pharmaceutical installation and drug warehouse management.

1. Planning

A. Special team of drug planning

The purpose of the drug planning is to establish the type and amount of medicine and health supplies appropriate according to the needs of basic health care. In connection with the above, it is absolutely necessary coordination and alignment in the planning of procurement of medicines and health supplies, so that the establishment of a drug planning team is a necessity in order to improve the efficiency and effectiveness of the use of funds through coordination, integration and synchronization between agencies related to drug problems in every district/city².

Based on the results of interviews with the informant in the technical implementation Unit of the District Medicine Hall management Ambon City about the presence of a special team in the drug planning obtained the following information:

“So in accordance with the decree made from the head of the city health Office in Ambon There is a name of the drug planning team, this drug planning team involves cross-program, in this case starting from the regional technical implementation Unit of the drug management hall itself then from its pharmacy section then from the holders of programs that use the drug in this case nutrition Program, KIA, P2p and the health center (HK, 48 years old)”

“The planning team was there and all staff of the regional technical implementing Unit drug management hall is involved for planning”. (BE,52 years)

“Well all that in the pharmacy installation district here anyway, the head of the pharmacy installation district, functional pharmacist and pharmaceutical power. Everyone here must be involved, you need in the data what each section will answer about the need for the head of the hall anyway “. (JG,49 years)

B. Compilation of drug use

From the results of interviews with informant in the technical Implementation unit of the District Health Care office in Ambon City about the compilation of drug use obtained the following information:

“Usually for our planning average usage of a year from the use of January to December we share with 12 and we can the results of planning a month and added also with a buffer Stocknya for 8 months”. (BE,52 years)

“The medicine is based on Dong have the data inevitably going in planning the next year there is a public health center planning, but the planning was like I said that, do not run away from what the Formularium of public health centers that are in the adoption of the national Formularium, continue based on their usage. So stay he saw that last year he evolved or he was reduced or no it was later in view of their request. Keep that request is certainly attributed to Katong have funds from DAK Kan. They want to ask how much is well certainly in adjusting to the budget DAK given “. (JG,49 years)

C. Calculation of drug needs

From the results of interviews with informant in the regional technical implementation Unit of the district Medical Management center in Ambon on the calculation of drug needs obtained the following information:

“This method of consumption is this Pak Yapi’s for example in a year from January to December we will see for example one of paracetamol drugs, paracetamol used by public health centers A to Z how total is used in a year means that the consumption pattern for paracetamol in a year ago. It became the basis of the policy to plan the following year and then we add the buffer stock of how, usually still closer to reality compared with other methods such as morbidity method is designed based on the objectives that want to be achieved sometimes the goal that you want to achieve this could also be somewhat sidetracked, the target is a thousand we provide a thousand when in fact only reaches five (HK 48 years)

“Mortality eg or can be with the method of use, so usually used that method of mortality” (BE,52 years).

“The Consumptive method is based on the use of the field.” (VH,40 years)

The results of interviews with the informant regarding the calculation of the drug needs known that the calculation of drug needs in the Regional technical Service Unit of the district health Care office in Ambon is using the method of consumption is by looking at the data usage of the drug in the previous year and not using morbidity method because it can be very far from the estimate.

D. Constraints in the preparation of drug planning

From the results of interviews with an informant in the regional technical implementation Unit of the district health Care Office in Ambon, the treatment of drug planning obtained the following information:

“Constraints inevitably exist. Mr. Yapi is sure to know a lot of obstacles in planning something because we plan it would want everything planned is approaching reality but in reality there are shifts. Related to the drug, we plan to use the method of consumption but in the service E the right to prescribe the doctor in the E if the

prescribing pattern is alternated then it will affect also the consumption pattern of the drug and the prescribing pattern strongly influenced by the individual physician. We know that doctors centered on community health is relatively alternated, sometimes this doctor sometimes doctors that prescribing patterns will change for example last year antihypertensive which tends to be widely used is the captopril but so change the doctor’s prescription pattern can change il become ambrodipin which was used to be in useless this year is used more means that the stock will be stocked out in this year while the captopril that was used many years is reduced so that the stock accumulates that sometimes become one of the obstacles in planning “. (HK 48 years)

“It’s the best thing if people’s health centers often switch to the doctor so that it affects the prescribing patterns that make the drug stock for certain medications that do not go well”. (BE,52 years).

“If there is no one who does not understand E calculation for future planning it may be because the medication item too much ya kan usually it is right per drug item so error in calculating”. (VH,40 years)

Based on the interview with the informant regarding the obstacles faced in the process of planning the drug in the regional technical implementation Unit of the district health Care office in Ambon City is known that the obstacles faced is the occurrence of the change of doctor in the Public health center so the drug prescribing also change and different from the previous year that causes stagnant and stock out drugs.

From the results of a document is known that the SOP Center for Drug Management in the city Health Department in Ambon for the treatment of drug planning is as follows:

A. To intensiize the letter of planning drug and BMHP needs from Public health center, the field of KESGA and P2P should be done according to the order of acceptance of the letter and stored in the file itself. Otherwise, the letter may be lost so that the drug planning does not meet the needs.

B. Implement the calculation of drug needs and BMHP planning based on the planning of Public health center and the field of family health and P2P DKK and

the availability of drugs in POAKPK hall and public health centers should be done carefully, carefully and accurately. Otherwise, the results of the drug planning calculations do not match what should be.

C. Research and study of proposals for drug planning and BMHP should be researched carefully and accurately. Otherwise, the results of the drug planning calculations do not match what should be.

D. Submission of proposed letter of calculation of drug and BMHP needs to be timely and targeted. Otherwise, it will inhibit the procurement process of the drug and BMHP.

E. Filing of proposed letter of calculation of drug needs and BMHP should conform to the standard archive. If not, it will be easily damaged and difficult to find/lost

Discussion

Planning needs is an activity to determine the number and period of procurement of pharmaceutical preparations, medical devices, and medically consumables in accordance with the results of election activities to ensure the fulfillment of criteria is appropriate, precise quantity, timely and efficient. Planning is done to avoid the vacancy of the drug using the accountable methods and the foundations of predetermined planning among others consumption, epidemiology, combination of consumption methods and epidemiology and adjusted to the available budget³.

A. Special drug planning

The drug planning team is a team that is specially formed to develop the need for drug procurement and is one of the supporting factors to achieve smoothness and accuracy in drug planning. In-depth interviews conducted in the regional Technical services Unit of the district health Care office in Ambon City obtained information that there is a special team formed for the planning of the drug in accordance with the decree issued by the head of the city health office in Ambon.

The drug planning team involves a related cross-sector consisting of the head of the regional Technical Services Unit, the pharmaceutical personnel and the responsible for the program and from the Public Health

Center itself. Involvement of various sectors in the planning of the drug is expected that the data needed for further planning can be submitted by each responsible by considering the state of field so that it is able to produce the planning that suits the needs of each part.

Based on the results of a thorough interview with the informant in the Regional technical Service Unit of the district health Care office in Ambon City can be concluded that there is a special team in the planning of drug needs. The planning team consists of a cross-sector that is the head of the regional Technical Services Unit in the Center for Drug Management, pharmaceutical personnel, and responsible programs and from public health centers.

This research is different from the research conducted by Prisanti that shows the results that in RISA Asiyiyah Klaten has not formed a special team to do planning and procurement of pharmaceutical preparations, all procurement is still done by the head of pharmaceutical installation. In the management of the drug, planning strategies include several processes that create an integrated drug planning team involving related elements, building a shared commitment to achieve a goal in an organization⁵.

As for the research in line is research conducted in Pharmacy installation RSUD Andi Makkasau City Parepare which has a special team for drug planning. The team is formed from each unit to prepare the necessary drug planning in pharmacy installation of Andi Makkasau City Parepare⁶.

B. Compilation of drug use

The compilation of drug usage serves to determine the monthly usage of each type of drug in Health Service Unit/Health Center for a year and as comparative data for optimum stock. The results of an interview in the regional Technical Services Unit of the district health Care office in Ambon City has obtained information that the compilation of drug use is seen based on the use in the field whether it is increased or decreased use of the drug during the year

The calculations for the compilation of the drug are conducted based on usage data in a year then will be shared with twelve months added with the drug booking

waiting time which sometimes does not correspond to the plan. From the average usage of a year, you get planning results for the month to be added with a buffer stock for eight months. The result is in accordance with Permenkes No. 74 the year 2016 where it is said that the installation of Pharmacy district/city will compile and analyze the need for pharmacy preparations in the working area, adjust to the available budget and take into account the vacancy time of the drug, buffer stock, and avoid the excess stock⁷.

C. Calculation of drug needs

Calculation of drug needs is done to determine the needs of the drug to be appropriately reviewed by type, quantity, or time. The blanks or excess types of certain medications can occur when calculations are only based on theoretical. Therefore, determining the need of medicine is a tough challenge that is always faced by pharmacists and pharmaceutical personnel who work both at PKD level and in UOPPK Regency/city.

Calculation of drug needs in the regional technical Services Unit of the Center for Drug Management of the city Health Office uses methods of consumption by looking at data usage in a year. It was then made the basis for planning policy determination for the following year, also added from the stock buffer. Using the method of consumption makes planning closer to reality compared to other methods that can be far from the estimate that can result in the occurrence of excess or lack of drug stock.

This research in line with the research conducted in the Health office of Southeast Minahasa District showed that the determination of the number of drugs needed is done by consumption and buffer stock, i.e. the average use of years x 18 months. Determination of the amount of drug needs done in planning the needs of the public medicine is assessed as not yet appropriate with the data required to perform the calculation of the contemplation in public medicine management guidelines and health supplies⁸.

Other research in line is done in pharmaceutical installation in hospital Porsea where based on the results of interviews on the informant related to the calculation of the number of drug needs is using the method of consumption based on the analysis of drug consumption

data of the previous year. In calculating the approximate needs of the drug has not been in accordance with the steps present in the method of consumption due to leadtimes data and buffer stock is not used in this calculation. This is different from the research in the technical service Unit of the district administration of drug management in Ambon City, which takes into account the data buffer stock. It can be assumed that the public hospital pharmacy installation party Porsea assumed that the understanding of the consumption method was purely seen from the drug usage in the previous year⁹.

D. Drug planning constraints

Problems in the planning of drugs can lead to discrepancies between the calculation of the drug with the realization of drug use. Based on the results of in-depth interviews with the informant known that the constraints of drug planning in the Regional technical Service Unit of the Center for Drug Management of the city Health Department in Ambon is often the change of doctor in Public Health Center and the error of calculating the drug due to the

Changes in the doctor affect the occurrence of consumption patterns and drug prescribing patterns, so even though it has been planned based on consumption methods but still occurs some shifts in drug use. Different prescribing patterns can occur in drugs that have the same function as for example for antihypertensive in the previous year tend to use a totopril drug but with the change of prescribing pattern doctors can turn into ambrodipin. Changes in the prescribing pattern may cause stock out in previously underused medications and excess stock for the drug often used over the previous year's period.

Research conducted in RSUP Prof. Dr. R. D. Kandou Manado showed the results that HNI drug procurement planning often have problems in terms of use of consumption method or usage data period ago. This is due to user behaviour in drug use. Given that planning is done by looking at the previous period usage data, then there is often a difference between the previous period usage data with the recipe writing pattern from the user in this case the doctor. Thus there is a gap between the HNI medications that have been provided with the medications used by the patient¹⁰.

Other research in line was conducted in the pharmacy installation of the hospital Porsea where in the planning for the provision of pharmaceutical drugs and supplies had been in the drug vacancy. This can be caused by various things, namely the impact of the drug prescribed by doctors outside the national formulary and the impact of the electronic procurement system (e-catalogue). In this process stock in the distributor is sometimes empty so the ordered medication is not directly available and there are some types of drugs that are rarely used so that the excess drug occurs. Drug planning sometimes has constraints and obstacles so the goal of planning the drug is not achieved or in other words the drug is not available by number, type or not available on time⁹.

Conclusion

The study concluded that the drug planning uses a special team with the calculation of drug needs using the method of consumption. The vacancy and excess drug is still often due to the change of doctor in the Public health center that affects the drug prescribing patterns. Therefore, it needs a good coordination between the planning team at the regional technical implementation Unit of the district health Care office in Ambon City with a doctor at the Public health center in the area to be obedient in writing recipes according to the medicines that have been ordered.

Ethical Clearance- Taken from University ethical committee

Source of Funding- Self

Conflict of Interest- Nil

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