
HIV/AIDS DRUG LOGISTICS MANAGEMENT IN BANDUNG CITY HOSPITAL PHARMACY INSTALLATION

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Abstracts

Introduction: Drug logistics management is a process of organizing the course of pharmaceutical preparations starting from planning, procurement, receipt, storage, distribution and recording and reporting. Bandung City Hospital is one of the PDP services that receives treatment for PLWHA. Bandung City Hospital receives ARV drugs supplied by the government through the Bandung City Health Office. The purpose of this study was to analyze the logistics management system of HIV/AIDS drugs in the pharmaceutical installation of Bandung City Hospital. **Methodology:** The research design used is qualitative with a descriptive approach. There were 7 informants in this study, namely 1 pharmaceutical installation staff, 1 person in charge of drug distribution, 1 HIV/AIDS program holder at the Bandung City Health Office, 1 pharmaceutical warehouse staff at the Bandung City Health Office, 1 HIV/AIDS program holder at the West Java Provincial Health Office and 1 PLWHA. Data analysis processing with data reduction, data display and conclusion making. **Research findings:** The results showed that human resources who manage ARV drugs are still lacking, budgeting is carried out by the Ministry of Health. ARV drug planning uses the consumption method, ARV drug storage is still not in accordance with applicable storage standards, drug distribution starts from the City Health Office taken by the hospital and then given to PLWHA using individual prescriptions, recording and reporting ARV drugs still experience problems, namely delays in submitting reports in the SIHA application. **Conclusions:** The availability of drugs in the warehouse there are vacancies in several types of drugs that cause officers to have to change drug regimens so that patients can still take ARV drugs.

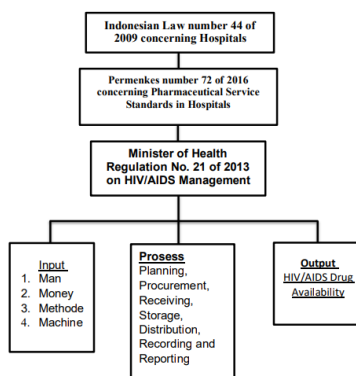
Keywords : Drug Logistics Management, ARV, Hospital

1. Introduction

Based on the results of the initial survey through interviews, it is known that there are 318 PLWHA in the Bandung City Hospital. Bandung City Hospital experienced problems such as drug shortages and excesses. The stock of antiretroviral drugs in January

there were six drugs that experienced shortages, namely lamivudine 150mg as many as 34 bottles, efavirenz 600mg as many as 36 bottles, tenofovir 300mg as many as 33 bottles, lopinavir/ritonavir 200/50mg as many as 7 bottles, tenofovir/ lamivudine/ efavirenz (300/300/600 mg) as many as

406 bottles and tenofovir/ lamivudine/ dolutegravir (300/300/50 mg) as many as 186 bottles. The problem of excess drugs also occurred in February several types of antiretroviral drugs that experienced excess such as lamivudine 150mg for 27 bottles, efavirenz 600mg for 12 bottles, nevirapine 200mg for 36 bottles, tenofovir 300mg for 26 bottles and several other types of antiretroviral drugs. How is the HIV/AIDS Drug Management System Analyzed in the Pharmacy Installation of Bandung City Hospital?



2. Methods

2.1 Research Methods

The type of research used is qualitative with a descriptive approach. The informants who will be selected as informants for this research include 6 people, namely :

1. Staff or Head of Pharmacy Installation.
2. Coordinator of HIV/AIDS Response Program at Bandung City Hospital.

3. Person in charge of antiretroviral (ARV) drugs distribution at Bandung City Hospital.
4. HIV/AIDS Program Manager at the Bandung City Health Office.
5. HIV/AIDS logistics manager at the Bandung City Health Office.
6. HIV/AIDS logistics coordinator at the pharmaceutical warehouse of the Bandung City Health Office.

2.2 Data Collection Techniques

- a. In-depth interview
- b. Observation

2.3 Research Instrument

- a. Observation Guidelines
- b. Interview
- c. Stationery Recording device (handphone)
- d. Computer equipment to compile research results

3. Results

3.1 Input

3.1.1 Man

The people responsible for ARV management are pharmacy warehouse staff, doctors, pharmacists and RR officers. The existing human resources are still not yet adequate. The minimum human resources for managing ARV drug logistics have a D3 Pharmacy Education background. ARV drug logistics management officers have

conducted training on ARV drug management 1 to 2 times in 1 year.

Filed of work	Education Qualification	Amount
Counselor	Pharmacist Profession	1 person
Pharmacist assistant	Pharmacy	1 person
Insurer answer ARV drug warehouse	Pharmacist	1 person
RR officer	Pharmacist	1 person
Total		4 person

3.1.2 Money

Founding sources for ARV drug management are funded from the APBD and Chemonics EpiC. The Indonesian Ministry of Health and Global Fund are the institutions responsible for the budget for ARV and Non-ARV supply chain management. The budgeting system for ARV drugs is conducted by the Ministry of Health at the national level. The source of funds received from Global Fund is used by hospitals for the nutrition of pediatric HIV cases and for the procurement of contraceptives for high-risk cases. Obstacles in budgeting ARV drugs are drug and reagent vacancies during the pandemic, drugs with short shelf life and items that support HIV prevention whose stock is unpredictable.

3.1.3 Machines

There are no special tools used, only couriers and ambulances. Facilities in the form of tools used in the management of existing ARV drug logistics are adequate in helping the work of officers. the condition of the tools is adequate in helping the management of ARV drug logistics.

3.1.4 Methode

ARV drug management has an SOP, but the existing SOP is the overall drug SOP. The existing SOPs are effective in carrying out ARV drug logistics management activities. The existing SOPs have been implemented well by the ARV drug logistics management officers.

		Methods		Information
No	Observation Statement	Result		
		Yes	No	
1	Availability of procedures for planning of ARV drugs		✓	Follow the existing flow
2	Availability of procedures for procurement of ARV drugs	✓		Request for government grant goods
3	Availability of procedures receiving ARV drugs	✓		Receipt of private grant goods
4	Availability of procedures for storing ARV drugs		✓	Use overall drug store SOP
5	Availability of procedures for distribution ARV drugs		✓	Follow the existing flow and SOP for ARV drug prescription service flow
6	Availability of procedures for recording and reporting ARV drugs		✓	Follow of the flow the SIHA manual

3.2 Process

3.2.1 Planning

The ARV drug planning process is carried out by the Head of Installation, poly officers and pharmacy administration personnel, carried out once a month every 26th to the 5th of the following month by filling out a request or planning report in SIHA. The method used is the consumption method. Needs planning has been effective so far. Obstacles in the planning system such as the availability of drug stocks that cause FDC drugs to be replaced, lack of human resources and drugs that have a short storage period.

		Planning		
No	Observation Statement	Result		Information
		Yes	No	
1	Officers evaluate the drugs that arrive	✓		Assignment letters and medication request letters
2	Recap 1 month of use	✓		
3	Determine the amount of medicine to order	✓		
4	Make a drug order letter to the distributor	✓		
5	Officers monitor remaining drug supplies	✓		

3.2.2 Reception

ARV drug recipients are hospital warehouse officers and poly officers or pharmacist assistants. The process of receiving ARV drugs is done by officers accompanied by a letter of assignment and a list of drugs to be taken based on SIHA. The reception process is done erratically according to the instructions of the city Health Office or according to the request for ARV drugs. The obstacle during the reception is transportation.

3.2.3 Procurement

The availability of ARV drugs has been adequate for the treatment of PLWHA for 3 months. In the procurement process there are no re-orders. In the procurement of ARV drugs, there have been delays, the delay took about 1 month. Obstacles during procurement are empty drug stocks and late officer reports in the SIHA application causing delays in delivery and collection of ARV drugs and empty drug stocks.

3.2.4 Storage

Drug storage is done in a separate place and drug storage in the clinic is done in a locked cabinet. ARV drugs are stored in the pharmaceutical warehouse and in CST or kemuning poly. ARV drug storage is always followed by a stock card in every transaction, the warehouse where ARV drugs are stored is not protected from direct sunlight. The security of ARV drugs in the pharmaceutical warehouse is adequate because the storage cabinets are locked, drug collection is done only by pharmaceutical officers and accompanied by CCTV.

Storage				
No	Observation Statement	Result		Information
		Yes	No	
1	Available shelves or medicine storage cabinets	✓		There is 1 shelf and 1 cupboard for storage
2	There is ventilation so there is air flow and there is no humidity		✓	
3	Floors made of tiles or cement	✓		
4	Make the corners of the floor or walls not sharps	✓		
5	There is a medicine storage warehouse	✓		
6	The wall is made smooth	✓		
7	Dry room not humid	✓		
8	Sufficient light	✓		
9	The warehouse uses a one-story system		✓	Pharmacy warehouse prone 2 floor for ARV drugs located in second floor
10	There is AC or a fan	✓		
11	Avoid it stacking of boxes, cartons and others	✓		
12	Using cupboard, shelves and pallets	✓		
13	Implement FIFO/FEFO storage method	✓		
14	Come with card stock	✓		

3.2.5 Distribution

The distribution of ARV drugs at the city health office in the P2P section will

first check the LBPHA 1 and 2 reports if they are correct, the hospital will be informed through the whatsapp group that the drugs can be taken. Drug collection is equipped with an assignment letter and request sheet. Distribution from the hospital warehouse to each poly by filling out a manual and online request sheet through the SIMRS application. When it has been approved, the poly officer takes the goods to the warehouse with a manual request sheet. The Bandung City Health Office will distribute ARV drugs to 24 PDP services. The hospital that receives the most ARV drug distribution is RSHS. The obstacle to distribution is if there is a delay in sending reports to SIHA and the absence of elevator facilities in the hospital makes it difficult for officers to carry ARV drugs in large quantities.

3.2.6 Recording and Reporting

There is no special SOP used by the officers. Recording and reporting is done daily and reporting is done monthly. Recording is done in SIMRS and reporting is done in SIHA. The way the recording process is done is by filling in the drug register, then the card. There are no obstacles experienced, it's just that officers are expected to be

more careful in storing documents and writing ARV drug documents.

3.3 Output

The availability of ARV drugs in hospitals is secure but there have been shortages and emptiness experienced. The method used to overcome drug shortages and vacancies is to use a drug loan system to other health facilities or replace temporary drug regimens.

4. Discussion

4.1 Input

1. The human resources available for the management of ARV drugs are considered insufficient in the management of ARV drugs.
2. The existing budget for ARV drug management or HIV/AIDS programs is done at the national level, which means it is done by the Ministry of Health.
3. The SOP used by officers as a guideline for ARV drug management activities is not complete, but officers only follow the existing flow and policies.
4. ARV drug management facilities are still lacking because there is no printer in the CST poly to print e-representations.

4.2 Process

1. There is a lack of human resources in ARV drug planning.
2. There is a delay in the procurement of ARV drugs.
3. The process of storage of ARV drugs in the pharmaceutical warehouse has not been in accordance with the pharmaceutical service guidelines for PLWHA.
4. The delay in sending reports from health facilities to SIHA causes the distribution of drugs in the health department to be delayed and inadequate facilities for distribution at the Bandung City Hospital.
5. The process of recording and reporting by officers is not timely.

4.3 Output

There are still cases of ARV drug vacancies in the pharmaceutical installation at Bandung City Hospital because of problems in the reporting process. This is due to the lack of accuracy of the officers who cause errors in report input so that there is a delay in submitting the report. However, officers can overcome this by switching drug regimens.

5. Conclusions

- a. There is a need for additional human resources, especially in poly services so that they can assist

officers in the ARV drug planning process as well.

- b. It is important to create a special SOP for ARV drugs.
- c. There needs to be a submission related to the infrastructure needed by officers.
- d. There needs to be an evaluation in the storage of ARV drugs so that things like the moisture of the storage room can be controlled.
- e. The need for supervision or monitoring can be done by the HIV/AIDS program coordinator.
- f. Officers can make a schedule of activities for filling out ARK reports. So that officers can focus on working on reports and there are no errors in inputting and no delays in reporting.

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