DRUG MANAGEMENT REVIEWS IN DISTRICT DRUG MANAGEMENT UNIT AND GENERAL HOSPITAL

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Abstract

Drug is one of the essential elements in healthcare that should be effectively and efficiently managed. Following the decentralization in 2001 in Indonesia, drug management has changed in district drug management units and also in District General Hospitals. Certainly this condition influences the sustainability of drug access in primary health care such as in Community Health Center and District General Hospital, especially in drug financing policy. A cross sectional descriptive study to obtain information on drug management in public healthcare in district had been carried out between July and December 2006 in 10 District Public Drug Management Units from 10 district health offices and 9 district general hospitals as samples. Data were collected by interviewing heads of Drug Section in District Health Offices and heads of Hospital Pharmacies using structured questionnaires and observing drug storage in District Drug Management Units, Community Health Centers, and Hospital Pharmacies. Results of the study show that drug planning in District Health Offices and General Hospitals did not meet the basic real need in some districts nor District Hospitals. The minimum health service standards had not been achieved yet. Furthermore, drug procurement, storage and recording as well as reporting was not good enough either, such as shown by the existence of expired drugs. Lead time for drug delivery to community health centers in some districts was longer than the average of lead time in the past 3 years.

Keywords: district, drug management, public health services

Introduction

Drug is an essential element in healthcare services that should be effectively and efficiently managed in order to achieve the predetermined objectives [1]. In the subsystem of Medicines and Medical Supply in National Health System (SKN) emphasis is given on the availability, fair distribution, affordability and the assurance of safety, efficacy and quality of medicine [2]. Drug programs in Indonesia have to refer to National Medicines Policy (KONAS) which is an official document setting forth the central, provincial and district commitment to define the national drug strategy with its priorities in achieving the health development goals. 2005 NMP assures drug as a social human basic need including the poor. One principal element of the NMP is the access and affordability of drugs [3].

Before the era of decentralization, the availability of essential drugs in public sector was assured by the government through District Pharmaceutical Warehouses (GFK). Since the decentralization, the role and function of GFK have changed due to different perspectives of the local governments and, therefore, may influence the sustainability of affordable essential medicines. Meanwhile, the medicine supply by private sectors is assured by industry, pharmaceutical wholesalers, pharmacies and OTC stores.

At present, budget allocation for drug provision in primary healthcare is determined by each local government. Sufficient and sustainable financing by the government will highly determine the availability and affordability of essential medicines to the public. For that reason, it is necessary to revitalize the function of medicine management units at district level, to increase the rational use of drugs and to make adjustment to drug management as per characteristics of certain regions.

Directorate of Public Medicines and Medical Supply, Directorate General of Pharmaceutical Services and Medical Devices (DG-PSMD) has facilitated an integrated meeting of district medicine management which came to a decision of activating an integrated medicine management team led by a pharmacist and procurement of drugs - by a District Health Office (DHO). A district should provide a drug warehouse and its facilities as well as the medicine budget for public sector; whereas, drug management budget came from the DHO.

The objective of district drug management is to assure the sustainable availability and affordability of drugs starting from planning the drug selection, procurement, storage, distribution to public healthcare services and monitoring and evaluation [4].

Nowadays, there are too many drug items circulated in the market. The most effective drug selection has to be based on a periodically-revised national essential drug list so as to control healthcare costs. Beside an economic impact, selection of drugs may also improve drug procurement, ensure adequate stock and make ease in distribution [5]. Since the decentralization, drug quality assurance, which was previously controlled by the National Agency of Food and Drug Control (NA-FDC), has been conducted by reviewing their certificate of analysis [1]. Important factors in drug selection include safety, efficacy and quality of drugs [6].

Timely drug delivery to warehouses and healthcare facilities in adequate quantities with the lowest distribution cost has to be emphasized [5]. Lead time range in general between three and four months, depending on the geographic conditions and available transportation. Thus, it can be concluded that the key to good drug procurement is the selection and counting of drugs using several methods according to each local condition [6]. Besides the two factors, the availability of drugs in public health facilities like in the community health centers (*Puskesmas*) depended, on the transportation for drug distribution from the district drug management units especially in large areas or that consisting of islands. Efficiency and effectiveness of distribution system must be continuously developed in support of availability, affordability and fair distribution.

Medicines are different from other trade commodities for they also have social functions and must be specifically stored and distributed according to their kinds. Unused drugs are often not recorded and may lead to overstock if they are reported to be used in planning [7]. Facilities and infrastructures such as pharmaceutical installations both at provincial and district level, and warehouses as drug management units should be managed in an effective and efficient manner. Storage of drugs has to assure the quality of drugs, timely and efficient delivery, minimization of expired drugs, control over theft and corruption, sound recording and rapid information on changes in drug stock. Drugs may be stored using FEFO (first expired first out) for those with expiration date or FIFO (first in first out) system, alphabetical order or pharmacological categories. It is better to adopt the combination of alphabetical-pharmacological system in order to minimize fatal risk in case of error [5].

This study reviews the situation of drug management in ten districts, in district drug management units or in district general hospitals (RSUD) after the decentralization which led to organization and authority changes in district pharmaceutical services where DHOs play a double role as a regulator and a drug manager including conducting drug monitoring.

Methods

A cross sectional descriptive study was done between July and December 2006 in ten districts and cities, namely districts of Bangka, Belitung, Kupang, Ende, Kota Waringin Barat, Jayapura, Gorontalo and cities of Palangkaraya, Jayapura and Gorontalo. The respondents were heads of drug section in DHOs, heads of pharmaceutical executive unit, heads of *Puskesmas* and heads of pharmaceutical installation in RSUD. Data were collected by structured interviews covering from planning, procurement, storage and distribution up to management monitoring and evaluation of drugs as well as by an observation on drug storage including their recording and storing systems.

Results and Discussion

Drug planning. Interviews with heads of drug management unit and drug managers in general hospital in districts show that planning of drugs in 7 districts out of 10 districts and 8 out of 9 hospitals fulfilled the real need, thus there was still a gap between the planning and the need of drugs in some districts. This might be due to an inappropriate allocation of drug budget and miscalculation of drug quantities. Lack of drug budget certainly influenced the availability of the kind or quantity of drugs. There were only 2 out of 10 districts whose drug budget was more than Rp5,000 per capita per annum (Table 1 and 2).

Concerning efficiency and effectiveness, not all drug planning by District Health Office and District General Hospital had met the real need. A study on the existence

Table 1. Perception of Drug Managers on the Realization and Planning of Drug Procurement

No	Institution	Fulfillment	
		Yes	No
1	District health office	7	3
2	District general hospital*	8	1

* One district had no RSUD

Table 2. Annual District Drug Budget per Capita

No	Annual drug budget/capita in rupiahs	No.of districts
1	< 1.000	1
2	1.000 – 3.000	3
3	3.001 – 5.000	3
4	> 5.000	2

* One district had no RSUD

of drug management unit in several districts revealed that besides drug budget, lack of human resources and facilities also played an important role [8].

Drug procurement. Interviews with heads of drug management unit in 10 districts show that 9 districts used a tender system and 5 districts had no adequate monitoring on the winning drug distributor just like 4 out of 7 district general hospitals. A greater part of drugs procured in district general hospitals were generic drugs and only 2 hospitals procured brand-name drugs in great quantity and some of them were not essential drugs. Therefore, minimum health service standards regarding drugs had not been achieved by every DHO and even more in general hospitals (6 out of 9 hospitals, Table 3 and 4). This will invariably have an impact on the availability and affordability of drugs to the community.

Concerning drug provision time, there was only one district general hospital whose realization time was not in line with the one stated in the predetermined contract, i.e. more than 8 months. Delivery time from a supplier to a general hospital ranged between one and two weeks and it happened to 4 hospitals (Table 5 and 6).

Drug storage. Drug storage observation in warehouses and hospitals in some regions was not so properly good, especially in the use of FIFO system and drug stock card (Table 7). It was also found storing practice that was based on the source of drugs so as to make inspection easier, and this certainly would bring distortion in drug stock evaluation. No record of drugs with expiration date in some warehouses and Puskesmas was also found.

Drug storing facilities in districts were still inadequate. Therefore the DG-PSMD in 2005 allocated fund to renovate district drug warehouses. Nonetheless, field observation still discovered warehouses that did not

Table 3. Drug Procurement and Monitoring of Drug Distributor

No	Institution	Tender procurement		Distributor monitoring	
		Yes	No	Yes	No
1	DHO	9	1	5	5
2	RSUD*	7	2	5	4

* One district had no RSUD

Table 4. Kinds of Drugs Procured

No	Institution	Mostly generic drugs		Only essential drugs	
		Yes	No	Yes	No
1	DHO	10	-	7	3
2	RSUD*	7	2	3	6

* One district had no RSUD

Table 5. Time Punctuality in Drug Procurement

No	Institution	Punctual as contract	
		Yes	No
1	DHO	10	-
2	RSUD*	8	1

* One district had no RSUD

Table 6. Drug Delivery Time from Supplier to District General Hospital

No	Delivery time	Number of hospitals
1	< 1 week	5
2	1 – 2 weeks	4

Table 7. Storing System and Use of Stock Card at District Drug Warehouse and General Hospital Based on Observation

No	Drug storing system	Number of warehouses		Number of hospitals	
		Yes	No	Yes	No
1	FIFO system	6	4	6	3
2	Stock card usage	7	3	6	3

Table 8. Drug Delivery Time from Supplier to Community Health Center Compared with the Average Time in the Past Three Years

No	Time comparison	Number of district drug warehouses*
1	Longer	4
2	Similar	3
3	Shorter	2

* One warehouse had no answer

fulfill the requirements. This might be because not all districts had received the renovation fund.

Drug distribution. The time needed since drugs were as ordered until delivered to community health centers in four districts was longer than, in three districts was the same with, and in two districts was shorter than, the average time needed in the past three years (Table 8). This might be caused by the improper condition of transportation vehicles at some district warehouses (Table 9). To solve the drug distribution problem, in 2005 fund was allocated to support drug distribution to community health centers by virtue of decision of the DG of PSMD No. YF 00.DJ.I.355. Nonetheless, district drug managers still complained of not having enough fund to distribute drugs due to large areas and limited transportation resulting in a high distribution cost.

Drug distribution should consider the geographical map, the alternative route to be taken, transportation vehicle used, safety drug condition like humidity and temperature [7].

Table 9. The Condition of Drug Distribution Facilities at Warehouses

No	Distribution facilities condition	Number of district drug warehouses
1	> 80% good	5
2	< 80% good	2
3	No answer	3

Table 10.   Physical Drug Inspection and the Existence of Expired Drugs

No	Institution	Physical inspection		Expired drugs	
		Yes	No	Yes	No
1	Drug Warehouse*	6	1	2	5
2	General Hospital**	6	-	2	7

* Three warehouses had no answer
** One district had no RSUD

Monitoring and evaluation. Physical drug inspection at drug warehouses and general hospitals by those responsible was done in all, except for one warehouse. However, expired drugs were still found at two warehouses and two hospitals. There were three districts that did not give an answer or their record on expired drugs could be observed, thus some warehouses and hospitals had not done an effective and efficient recording and monitoring -yet at all.

Conclusion

Not all drug planning by District Health Offices and District General Hospitals met the real need. The minimum health service standards, especially concerning drug procurement, had not been achieved yet by some District Health Offices, even more by District General Hospitals. Drug storing at warehouses and hospitals in several areas was still inappropriate. The time needed from order until delivery to community health center in some districts was longer than the average time needed in the past three years . Expired drugs were still found at some warehouses and hospitals.

A more intensive and profound drug management training is necessary to improve drug procurement, storage and recording so as to achieve the minimum health service standards. Training on an effective negotiation method with the local government/ parliament, who are the policy maker, for drug managers was a must in order to increase availability and affordability of drugs.

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