

THE EFFECT OF PROCUREMENT METHOD ON DRUG COST IN LAGOS STATE GOVERNMENT HOSPITALS

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ABSTRACT

The fact remains that a high percentage of those who attend Government owned health institutions, hope for a better treatment at a reduced cost when compared to the cost of attending a private hospital of the same standard. Contrary to this expectation majority of these patients cannot afford the cost of the most essential drugs needed for their health conditions even in the government owned facilities.

This study was conducted to assess and/or investigate into the various methods of procurement employed in the institutions and their impact on the cost of drugs sold to patients.

Using a structured questionnaire, personal interview of the key officers was conducted in 15 secondary health facilities in the State as well as investigation into the various store processes. Relevant information such as demographic data, availability of essential drugs list, procurement methods, costs of drugs etc were obtained.

The result revealed that the commonly employed method of procurement (Direct purchase) results in the purchase of drugs at high prices, which eventually leads to provision very expensive drugs, which the patient cannot afford. This also result in frequent stock-out period and a negative impact in health care delivery.

It is therefore suggested that a lesser expensive method of procurement be employed in order to meet one of the important goals of Essential Drug Programme, which is THE PROVISION OF ESSENTIAL DRUGS AT AFFORDABLE PRICES.

INTRODUCTION

An effective Procurement process is an

essential part of Drug Supply System, which ensures availability of the right drug in the right quantity at reasonable price and recognized standard of quality.

It involves a cyclic process whereby

1. Requirements are selected based on relevant information, they must be of good quality, safe efficacious, and be at affordable cost and readily available¹
2. Quantities to be purchased are determined /reconciled with available funds
3. The method of procurement is chosen.
4. Specified contract signed with selected suppliers, order monitored and goods received checked and paid for.
5. The drugs are distributed for use.
6. Consumption and other necessary information are collected to start another procurement cycle.²

Effective management of the procurement cycle has the following advantages:

- Purchase of the right drugs at the right time.
- Obtain the lowest purchase price.
- Ensures that all drugs procured meet recognized standard of quality.
- Ensures timely delivery of product.
- Ensures that suppliers are able to supply quality goods and back them with quality service.
- Minimises loss of resources resulting from procurement.
- It also ensures optimal use of all available resources.³ For the achievement of the above-mentioned outcome, an appropriate method of procurement must be

chosen.

The following methods are available:

- (1) Open tender this is a public or unrestricted bid. It involves the invitation of quotations from the manufacturers and representatives. It usually results in the lowest prices but requires the most staff time and closest monitoring of suppliers performance. An example of such is Tamil Nadu (an Indian state) where there is no longer any purchase or price preference to particular suppliers but a number of suppliers who are willing to march the lower price. The quality of the product is also a major concern for the government. It was stipulated that such manufacturers should have good manufacturing practices and a market standing of at least 3years. It was also the Government decision to pay within 15 days to encourage manufacturers to quote competitive rate.⁴
- (2) Restricted tender :Interested suppliers are approved in advance often by pre qualification process that considers adherence to good manufacturing practices, quality standard, past suppliers performance, financial viability and related factors. It often obtains favorable prices. It is generally quicker and requires less staff and time than open tender. Example of such is seen in the Organisation of Eastern Caribbean states /Pharmaceutical Procurement services. (OECS/PPS). The core function of OECS/PPS is the pooled procurement of all the pharmaceuticals and medical supplies the Ministries of Health in the country. The PPS operates a centralized restricted tendering system in which all approved suppliers are pre-qualified by a vendor' registration questionnaire, after soliciting bids for over 75 international suppliers, the service awards annual contracts, place order

directly with suppliers and monitor delivery and supplier performance⁵

- (3) Competitive negotiation: the method in which limited numbers of suppliers are approached for price quotation. Buyers may also be approached for supply to achieve certain price or service arrangement. It is useful for selected products in cases where likely suppliers are well known and can be approached directly.
- (4) Direct procurement: this is the purchase from single supplier either at quoted price or negotiated price. It is the most expensive method.^{6,7}

MATERIALS AND METHODOLOGY

All public secondary health facilities in Lagos state were used for the purpose of this study. There were responses from 15 out of 19 centers visited; the pharmacists in charge of the remaining centers were out on official assignment at the time of the visit.

Two sets of structured questionnaires were used, the first set consists of both opened and closed ended question which covered all areas connected to procurement and the second set was designed for personal investigation into the various process. The data obtained was analysed with Epi-Info version 6 statistical and database software.

RESULTS

Lagos state Government Hospital Board has 19 health facilities sited all over the state with, an average of 260 beds per hospital and the average attendance of 130 patients per day.

DEMOGRAPHY

66.6% of the officers in charge of the stores were females and the remaining 33.4% were males. The age range of 60% is 30-40years, 33.3% is 41-50years and remaining 6.7% is 51-60years. 8.3 % of the officers qualified within the last 10years, 58.3% within 11-15 years and 33.3% within 16years and above. 66.7% were in the rank of Assistant Chief Pharmacist while the remaining 33.3% ranked below the post (table 1).

SELECTION

53% of the respondents indicated the use of formulary list in their hospitals while the remaining 47% declared that it was not available. Out of the 53% that claimed the use of the formulary

list only 6.6% were able to produce a copy of the list.

69% of the respondent indicated the use of drugs in the formulary list in their units. 75% claimed the existence of official drug committee in their hospital but further investigation revealed that there is no functional drug committee. The usual practice is the collation of names of drugs needed by the store pharmacist through the head of pharmacy unit. Such list is presented to the Chief Medical Director for approval before purchasing.

QUANTIFICATION

The result revealed that a greater (81.9) percentage of the respondents use stock replenishment method following routine monitoring of stock level while the remaining 19.1% claimed the use of consumption method but could not describe any mathematical calculations involved.

PROCUREMENT

Only 16.7% of the hospital indicated purchase of their drugs through competitive tender, while the remaining 83.3 % are through direct purchase (fig 1). Investigation also revealed that the (60%) of their stock is from central store, and the remaining 40% of the stock in each hospital is through the mini DRF system of each hospital. Purchased through competitive tender is only carried out by the State's Central Medical Store (i.e. the tendering process and award of contract are usually through state secretariat and the drugs are delivered to the central store for distribution to the Health facilities who are in need) (table 2). The remaining drugs are purchased directly by each facility as the need arises.

AFFORDABILITY OF DRUGS

The mean cost per daily dose of the commonly prescribed antibiotics was compared with both wholesaler and retail outlet prices (table3). Two have higher prices when compared to retail prices, two had almost same price while the remaining six cost less. Two out 10 had mark up of less than 20% while the remaining seven has mark up of which ranges from 30-50% when compared with wholesale price.

PHARMACIST AND HEALTH POLICY

60% claimed that they are aware and understand the goal of Health policy

(HEALTH FOR ALL), while the remaining 40% claimed ignorance. The role of pharmacists in the achievement of the goals of National Health Policy as perceived by 41.7% of the managers is making drugs available, 41.7% indicated their roles as the procuring quality drugs and counseling on drug use while the remaining 16.7% did not indicate any role.

91.9% of the respondents claimed to have been trained in the last two years in form of seminars, workshops and conferences. About 53.3% of the respondents were trained on Drug Supply management but not for the purpose of managing the stores at that particular time.

DISCUSSION

Pharmaceuticals have contributed no less in the global reduction of morbidity and mortality.

Drugs save lives, improve health and should be made available, accessible and affordable to the populace.⁸ The result of this research revealed that majority of the managers of the Drug supply system in Lagos State Government hospitals are in the rank of Assistant Chief pharmacist who graduated over eleven years ago. This revealed that the caliber of people and the wealth of experience acquired over the years should be adequate for effective management of the Drug Supply System.

Effective management of Procurement cycle is an important aspect of Drug Supply System, which ensures availability of the right drug in the right quantities, at reasonable price and recognized standard of quality. The process is technical and the knowledge can be acquired through training, in form of seminars, workshops and conferences.

It should be noted that the implementation of Essential Drug Programme starts with careful selection process by Pharmacy and Therapeutics Committee (P&TC), a committee made up of competent officers from their various fields of specializations. Their decisions are not usually biased nor influenced by representatives of drug companies.²

This process of selection leads to the production of Essential Drug List. Although the first edition of Lagos State Essential Drug list was produced in 1998 it has not yet been circulated to the facilities as at the time of this research. The effect of the delay was

the use of any types of drugs that are available without restriction to any list. One of the advantages of a good quantification system is that it helps to get rid of the "out of stock syndrome" and overstocking of unnecessary drugs. Non enforcement of the use of Essential Drug List and the old method quantification, which is stock replenishment following routine monitoring of stock levels, still being employed can not guarantee the future needs of drugs requirement of the various health facilities. All factors mentioned above have resulted in daily and weekly purchasing of the various hospitals because the central store could not adequately cater for their needs.

Although, financial constraints have made it increasingly difficult for developing countries to adequately finance the supply of drugs to health facilities. It has been recognized that improving the use of existing resources could be achieved by efficient procurement practice. Out of the four areas of drug supply management cycle (selection, procurement, distribution and use) efficient procurement provides the greatest opportunity for cost savings. Using the best method of procurement can yield good product at a reduced cost, at the right time and at adequate quantities. The result of this research showed that a low percentage (16.7%) of their purchases are through competitive tender, and a high percentage (83.3%) is through direct purchase, which is an expensive method. This usually result in high prices of drug to be given out to the end consumers (patients) Ability to find the most essential drugs at any level of Health institution at affordable price is one of the indicators to the achievement of the goal of essential of Essential Drug Programme. The mean cost per daily dose of commonly prescribed antibiotics, in Lagos state Government Hospital was compared with both the wholesalers and the retail outlet price. Two out of the antibiotics have higher prices compared to the retail prices while another two had almost the same price but the remaining six cost less than the retail outlet price (table 3). It was also discovered that only three out of the ten drugs had mark up of less than 20%, the remaining seven had mark up which ranges from 30-50% when compared with the wholesale price.

This shows that drugs were likely to have been purchased at high prices since the approved mark-up price in

the state is about 20% the resultant high price must have been as a result of the high purchase price.

The problem can be attributed to the procurement method (Direct purchase) mostly employed in Lagos State government hospital which is a very expensive method compared to the competitive tender.

This problem can be solved if pooled procurement can be enforced and which facilitate bulk purchasing hence reduction in cost of drugs. The terms of payment should be indicated in the contract award so that supplier can be confident of getting their money on time. Health care is expected to be affordable to the populace in government hospital but a denial of such care will increase the number of death; hence the goal of 'HEALTH FOR ALL' is defeated.

RECOMMENDATION /CONCLUSION

The role of pharmaceuticals in health care cannot be overemphasized. It is highly imperative that drug supply system be properly managed. Management of financial, human and material resources is not only good in itself but the overall impact on the health of the populace. Lagos state government has made efforts to make drugs available to the people, the production of EDL and formal implementation of the State's health policy will in great measure contribute to the improvement of the management of drug supply system but there are rooms for improvement.

Centralized tendering for pharmaceutical and related medical supplies has demonstrated that improved procurement can reduce cost and enhance efficiency of Health service delivery⁵⁷

It is therefore recommended that the State should pursue an action plan on pooled procurement of their pharmaceuticals and these are some of the tips to its success:

- Political will and financial commitment.
- Continuous strengthening of the State's Health and Drug Policies
- Revision of the Essential Drug Lists from time to time.
- Participatory decision -making.
- Careful selection of suppliers.

- Prompt payment of suppliers.
- Provision of training and technical assistance to the participators on every aspect of Drug Supply System.

In conclusion, Government owned hospitals can meet the expectation of the general populace in terms of getting the right drug meant for their disease conditions, at the right standard of quality and at affordable price if the right tool is put in place. Pooled procurement through centralized tendering will be an appropriate option.

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RESULTS

TABLE 1: DEMOGRAPHY

ITEM	% FREQUENCY
GENDER	
Female	66.6
Male	33.4
AGE	
30-40	60
41-50	33.33
51-60	66.6
YEARS OF QUALIFICATION	
>10	8.3
11-15	58.3
16 years & above	33.3
RANK	
Principal Pharmacist & Below	33.3
Assistant Chief Pharmacist	66.7

Figure 1: PROCUREMENT METHODS

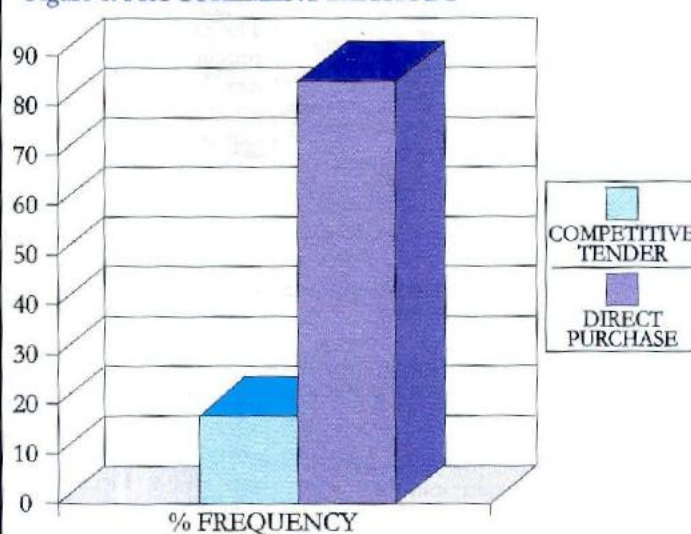


TABLE 2: PROCUREMENT ISSUES

Variables	Results
Average Lead Time	2 Weeks
Supplies Selection Criteria	Quality & Price of Product
Penalty for Supplier's Failure	Revalidation 75%, cancellation 25%
Purchase from Local Manufacturer	Above 50%
Suppliers Performance Monitor	Quality & Price of Product

TABLE 3: MEAN COST COMPARISON (AFFORDABILITY)

ANTIBIOTIC	DD	LSGHP	ROP	WP
Ampicillin Cap.	250mg Qid	11	14	8.8
Ampi-clop Cap.	500mg Qid	37.20	60	18.4
Tetracycline Cap.	250mg Qid	4	8.64	3.52
Metronidazole Tab.	400mg Tid	6	9	4.8
Streptomycin Inj.	1g Daily	8.8	9	6.3
Gentamycin Inj.	80mg Tid	30	30	24
Amoxycillin Cap.	250mg Tid	27	13.5	10.2
TMP/SMX Tab.	960mg Bid	6	14.4	4.8
Erythromycin Tab.	250mg Tid	30	54.48	22.8
Procain Penicillin Inj.	1g Daily	45	40.55	25

KEY LSGHP = Lagos State Hospital Price
 ROP = Retail Outlet Price
 WP = Wholesale Price
 DD = Daily Dose
 TMP/SMX = Trimethoprim / Sulphamethoxazole