

Study Protocol

A Cross-Sectional study on Procurement of Drugs and Consumables in a Tertiary Care Hospital

ABSTRACT

BACKGROUND: In health care Pharmaceutical medication plays a vital role, since physicians often recommend medicine if one is ill. In the operation of every hospital, the supply of medicines is essential. In order for the supply of drugs to be consistent, their manufacturing processes and the difficulties they face are important requirements that should be considered during drug procurement. If correct procurement procedures are followed most of the unnecessary problems such as excess or lack of drugs are reduced. In medical administration, acquisition process play a important role. This links closely with choice of medicine, evaluation of medicine requirement, collection and delivery. This study intends to determine the procurement procedure of pharmaceuticals drugs and kits at AVBRH and assess the challenges in the procurement process.

METHODOLOGY: This descriptive research study will be conducted at AVBRH, Wardha. An open ended questionnaire will used for data collection. The main informants would be the Medical Superintendent, the pharmacy officer in charge, the sales managers, the pharmacist, the pharmacy sales manager and the shop manager. Obtained data will be analyzed with statistical appropriate tests.

RESULTS: The drug procurement procedure at AVBRH in comparison with ideal procedure of drug procurement, gaps in procedure will be identified and highlighted mitigate shortage of drugs in AVBRH.

CONCLUSION: Acute shortage of drugs in hospitals result in patient's dissatisfaction. Improved standard of procurement procedures can bring about a change in patient satisfaction and patient turnover.

Keywords: Drugs, Consumables, Procurement, Quantification, Accountability, Pharmaceuticals, Pharmacy, Sales

INTRODUCTION

The purchase of goods for the immediate profit of Hospital or individuals at the reasonable overall cost of production, in the proper amount and quality in the best price , in the correct place and from the right source is called as Procurement. [1]In health care Pharmaceutical medication plays a vital role, since physicians often recommend medicine if one is ill. In the operation of every hospital, the supply of medicines is essential. In order for the supply of drugs to be consistent, their manufacturing processes and the difficulties they face are important

requirements should be considered during drug procurement.[1].If correct procurement procedures are followed most of the unnecessary problems such as excess or lack of drugs are reduced. In medication administration acquisition process play a important role. This links closely with choice of medicine, evaluation of medicine requirement ,collection and delivery. It was found important to figure out some of the variables in the drug management cycle, specifically the sourcing that would lead to this issue, because of the shortage of some medications and the burden it created on the patients [1]. Procurement is systematic procedure that comprises several phases. Accurate protocols must be in place to

- a) choose the most premium appropriate medicines for the treatment of frequently detected diseases;
 - b) quantify needs;
 - c) pre-select alternative potential medicines for the treatment of commonly encountered diseases;
 - d) sourcing and delivery management;
 - e) maintaining high product quality; and
 - f) tracking supplier efficiency and the procurement system.
- Failure in each of these fields results in a shortage of access to and access to effective drugs.[2]

There are four strategic goals for good pharmaceutical procurement.

- 1.Procure the necessary quantity of the most cost-effective drugs.
- 2.Select manufacturers of high quality goods that are consistent.
- 3.Ensure Timely distribution
- 4.Achieving the lowest possible expense with the highest value-quality.[2]

For successful pharmaceutical selection, organizational guidelines are-

1] Honest and transparent accountability

- Separate roles and obligations related to procurement (validation, Choice, Specification of goods, pre-selection of vendors and award of tenders) should be considered. Divided into various departments, commissions and persons, each with the necessary Specialist and tools for a particular role.
- Procurement processes, following formal written procedures, should be clear throughout the method by using specific conditions to grant contracts.
- Procurement should be correctly arranged and the efficiency of procurement should be Monitored regularly; an annual external evaluation should be included in the surveillance.[3]

2] Selection and Quantification of Medications

- Procurement in the public sector should be restricted to an essential list of medicines or National/Local List of Forms.
- Procurement and tendering records should mention medicines through their Foreign Organisation INN or common name. Nonproprietary name (INN).
- The amounts ordered should be based on an accurate estimation of real specifications.[3]

3] Funding and Competition

- To ensure secure funding for procurement, frameworks should be placed in place.
- Good protocols for financial reporting should be followed to optimise the use of For financial capital.
- In order to do this, procurement should be carried out in the greatest possible amounts. Sized economies; this refers to centralised as well as decentralised structures.
- Public health sector procurement should be focused on competitive procurement. Methods of procurement, and for very tiny or emergency requests.

4] Selection of vendors and Quality Management

- Both contract products from the buying groups can be purchased by members of the buying groups. The supplier(s) who holds the deal.[3]

An growing percentage of healthcare expenditures is reflected by Drug expenses. To tackle costs and encourage patient protection and quality care, procurement is important. To insure that Activities for pharmacy procurement run properly, management should establish 1 formal procurement activities. Procurement methods within the enterprise to be observed. These processes should be Checked periodically and revised to incorporate changes in legislation and operations when appropriate. The safety and effectiveness of medication sales should be promoted and the cost should be included. Techniques for containment, [4]such as:

- Defining the inclusion mechanism for the form;
- Use of a restricted list of drugs or a form identifying each drug to be purchased;
- Practicing fair bidding to ensure optimum prices for drugs;
- If eligible, enroll in the 340B Prescription Price Program;
- Take advantage of greater purchase power by partnering in a collective of business partners;
- Limiting the use of territorial contracts signed outside the buying organisations in the group; and
- Specifying requirements for the selection of producers and manufacturers of drug products.

Patient data mining and benchmarking can be used. Management of hospitals to determine prescription prices relative to Standards of the market and to describe medications that cost the pharmacy More than the planned repayment earned for their use. Data analytics may also be used to detect missing or missing drugs. An invalid National Code on Drugs (NDC).Hospital sourcing, in addition to cost accounting strategies and tight regulations over drug procurement, Pharmacy management must properly track the collection and payment of invoices from drug sellers to ensure the purchased goods have been obtained and invoiced properly. Appropriate documentation that supports for pharmaceutical sales, proof of medications purchased matching the form and amount should be preserved .Reflected on the invoice from the vendor. Data analytics can also be used to compare the expense of the provider Invoices for the selling price of the agreed or contracted prescription.[4]

Health organisations face multiple obstacles associated with new standards, including consumer requirements. Discontent, rising the expense of health care, competition and reducing service

reimbursement[5]. All these variables push health organizations to implement a framework that will satisfy these criteria in order to deal with the requirements. Continuous advances, changes in infrastructure, increasing prices for health care, increased competition and Gaining the satisfaction of clients . Private hospital managers are increasingly expected to adopting supply chain management; encouraging health care development. Supply chain management has become an important phenomenon for health care companies to meet the established goals of the enterprise because of cost containment.[5]Supply chain management (SCM) deals with various categories of supply chain management Flows; that is, flows of products, flows of data and flows of funds in and between supply chain partners The supply chain of healthcare consists of three main actors at separate levels, including manufacturers, consumers, and healthcare providers, in order to fulfill customer demands in the most effective manner.[5] Pharmaceutical firms, medical devices companies, computer manufacturers, and capital equipment and information technology manufacturers are among the suppliers. Purchasers include community buying organisations (GPOs), prescription wholesalers, providers of surgical surgery, independent distributors and manufacturers' product representatives. Hospitals, healthcare services, automated distribution networks (IDNs), and alternative site facilities are among the vendors. Quality improvement programmes have been introduced in healthcare industries and hospitals concentrate on how to deliver quality care In order to effect effects with respect to hospital success and patient happiness, it should be delivered. Outsourcing of supply data is an emerging practice in the healthcare sector. Skilled supply data service provider administration.[5]

Procurement and contracting play an important part in deciding the supply of health goods and hence addiction to them. The private sector is also kept up as a private sector Performance benchmark for the public sector. [6]Procurement in the public sector Organizations face particular problems and limitations, For example, greater public attention and lengthy Procedures for procurement. Corruption also gives a big obstacle, as some actors will be able to Promoting or retaining obscurity to allow them to Gain larger rentals from the scheme. While Openness and the avoidance of corruption are Some believe that it is important to use taxpayer funds. Adopting extra checks and balances Limit acquisition mobility and flexibility Professions. And inside the government sector, The procurement of goods for health needs Greater resilience and reactivity to transition than the purchase of such items.[6]

The term public procurement applies to an arrangement between a private corporation and a public body. Public procurement contracts are governed by the Public Procurement Act, which lays down the laws governing the performance of public procurement contracts and provides the requirements for the awarding of public procurement procedures.[7] The standard of the award procedure's execution affects the Performance and the contract's clarity. Procurement processes as instructions for or means of purchasing acceptable products and/or resources at the best possible cost to satisfy the organization's quality, quantity, time and location criteria. It is a very complicated mechanism involving a diverse number of players from both the private and public sectors to supply health facilities with medications and medical supplies. Government health ministry also lack the managerial skills needed to write technical requirements, oversee competitive procurement, and document and measure the success of the contract[7].

Corruption can arise at any point of the process and affect decisions on the procurement model, the form and amount of procured products, and requirements and selection criteria that eventually threaten access to medicines of critical quality.[7]Health institutions are impacted by

prescription shortages or by hanging on to obsolete medications. The prescribed drugs are hardly supplied by health centres and pharmacies. It reveals that high expired prescription prices in pharmacies and other public hospitals suggest inadequate planning in the counties and high waste of public money, which affects the effective supply of quality care.[7] Procurement is an integral aspect of good management and essential for all level care institutions is procurement and waste. An successful sourcing process guarantees that the best drugs are available in the necessary amounts, available to the right customer at the right time at the right costs and at identifiable quality levels.[7]

It is necessary to decide the quantity of drugs required in order to order an equal number of drugs. If ordered in limited numbers, it contributes to prescription shortages, which impacts patients' treatment and care.[8]When ordered in vast amounts, it contributes to opioid accumulation, which results in patient funds being lost. The order quantity depends on stock consumption, number of patients treated, order frequency. Proper gradation ensures that ample supplies are available and evades all stock overload and underload.[8]

By raising obstacles to optimal treatment, Opioid product shortages endanger the quality of patient care and public health. Scarcity and costs may have a detrimental effect on medical conditions and the capacity of healthcare providers to adapt to their patients' needs.[9]The factors of shortage characteristics make preparation challenging, despite innovative approaches to shortage management, have been recorded. The result of drug shortage without an analogous replacement commodity has been documented.[9]

The hospital pharmacist should be a pharmacy expert who advises on prescribing, distributing and controlling, as well as supply manager who ensures that drugs are accessible by sourcing, transportation, delivery, inventory management and quality assurance. The balance between these two positions differs based on the context and work environment of the persons.[10]

Objectives

- 1)To determine the procurement procedure of pharmaceuticals drugs and kits at AVBRH.
- 2)To determine the challenge facing the procurement of pharmaceuticals drugs and kits at AVBRH.
- 3)Factors affecting the procurement of pharmaceutical drugs and kits at AVBRH
- 4)To explore and Measure the effect of supply chain management ,s on the quality of health service dimensions in AVBRH
- 5)Strategic Contracting practices to improve procurement of kits and pharmaceuticals drugs

METHODOLOGY

The study will be performed at Acharya Vinoba Bhave Rural Hospital in Wardha. The quantitative approach will be used for descriptive research design. The data will be obtained using open questions and noted, because the analysis is retrospective at a single point in time,

this is the transparent strategy since it allows significant data to be collected and evaluated systematically in a short time. The methodology allows data to be collected and analysed systematically and provide a descriptive account of the variables under study. After data is collected it will be analysed and compare with the ideal procurement process, then recommendation will be given to improve it.

Methods

Study Design: Descriptive cross-sectional study.

Place of Study: The study will conducted at Acharya Vinoba Bhave Rural Hospital.

Study Population: The main informants would be the Medical Superintendent, the pharmacy officer in charge, the sales managers, the pharmacist, the pharmacy sales manager and the shop manager.

Source of data-Data has been collected by taking interview of informants which are involved in the process of drug procurement.

ELIGIBILITY CRITERIA

Those who will be better positioned to interact with the pharmacy procurement process will be included as respondents to the study.

The main informant will be chosen on the basis of their ability to supply the necessary research detail.

Key-result- Analyze primary findings in regard to objective analysis results.

Result- This research would aim to discuss the evidence and feasibility of pharmaceutical acquisition at the Acharya Vinoba Bhave Rural Hospital. It will also aim to access how the length of the operation, legal practice, personnel preparation and record keeping are taken, and include recommendations that help strengthen the sourcing process and prevent prescription shortages, thereby helping to smooth hospital functioning

Discussion and Conclusion

The procurement process is increasingly recognized as important in service delivery in developed countries and accounts for a high proportion of total spending. Pharmaceuticals are one of the largest components in health expenditure. The prevalent obstacle is the lack of medications in health care. Inadequate financing, inadequate quantification, insufficient administration, lack of resources are the key challenges encountered in drug procurement. The study advises that transparency and transparency should be maintained in the procurement process checks and interventions that involve rigorous auditing must be given to prevent misappropriation of funds. It is important for hospital administrators to consider patients. Related studies were reported by Lozano et. al.[11] , Zodpey et.al.[12] and Quazi et.al. [13]. Other

articles related to various evidences are available [14-18]. This report will aim to discuss the pharmaceutical sourcing process and usefulness at the AVBRH. It will also attempt to access the time taken, ethical procedures, executive preparation and record keeping and ICT usage of procurement process influence performance.[14-23]

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