

A Study of Medicinal Supply Chain Management for Hospitals as Consumer in Uttar Pradesh State of India

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ABSTRACT

Strategies of pharmaceutical supply chain and inventory management are highly beneficial in optimization of logistic support in healthcare perspective, specifically in a hospital setup. Logistic performance of medicine is important for efficiency and quality enhancement together with financial benefits. To optimize the logistics performance of pharmaceutical supplies, various parameters should be studied including supply chain in the region, purchasing process of hospital, and medicine logistic management in the selected hospital. In this study, we have tried to identify the framework of supply of medicines in the region of Uttar Pradesh in India.

Keywords: supply chain management, pharmaceutical supply, drugs, logistics, management

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INTRODUCTION

With respect to other supply chains in the market, medicinal supply chains are different as they have large and extended global pipelines requiring high levels of product availability with high uncertainty in supply and demand. Organizations can significantly reduce their cost and improve their performance by optimization of supply chain and logistics approaches [1–3].

The product flow or medical logistics at one hand includes the supply of pharmaceutical, medical, surgical consumables, medical devices, hygiene consumables, food supplies, equipment, and other supplementary products necessary to support doctors, nurses, and of course patients of hospitals. On the other hand, information and financial flows are related to supply chain decisions for effective product flow and organizational performance improvement. In healthcare sector, medicine management is the ability of healthcare and pharmaceutical organizations to

optimize the pharmaceuticals use [4]. The hospital pharmacy plays a vital role in patient care with pharmacy logistics processes. We studied the medicinal supply chain management for hospitals as a consumer.

METHODOLOGY OF THE STUDY

To understand better about the procedure of medicine supply chain management in the selected region, we surveyed in the market and tried to study the process of supply of pharmaceutical products in the selected region. For this, we tried to study the flow from manufacturing unit to the local distributors and till it reaches the customers. Further, we focused to study the purchase of medicine and its supply chain in the selected hospital.

MEDICINAL SUPPLY CHAIN MANAGEMENT

Process of Supply Chain

When we study the supply chain process, we find that the medicines are produced in the manufacturing units and then reach the

company warehouse where the margin is decided. The company supplies these drugs and pharmaceuticals to the local distributor channel or CFA. These products are supplied by local distributors according to the market requirements. The details of the flow are shown in Figure 1.

Only the wholesalers who can buy these products are authorized and others are not allowed to buy them. Wholesalers supply these medicines to pharmacies or hospitals according to their requirements. In the end, retail pharmacies or hospital pharmacies supply these medicines to their customers as they require them, as we can see in the flow chart.

Medicine Supply Chain in the Hospitals

Further, we studied the framework of pharmaceutical purchase in the hospitals and how the supply chain is associated at

hospital level as a consumer. We studied the existing structure and process of drug purchase in the hospitals and investigated the methods used for logistics operation.

After studying the regional supply process, we selected the hospital and the department for hospital data collection. By studying the medical logistics management in the hospital in detail, we found details of the flow and the committee involved throughout the hospital procurement process. This process initiates from the manufacturing company and ends at the end user, hospital as consumer.

Drug supply management is organized around five fundamental functions of the medicine management cycle: selection, quantification, procurement, distribution, and use.

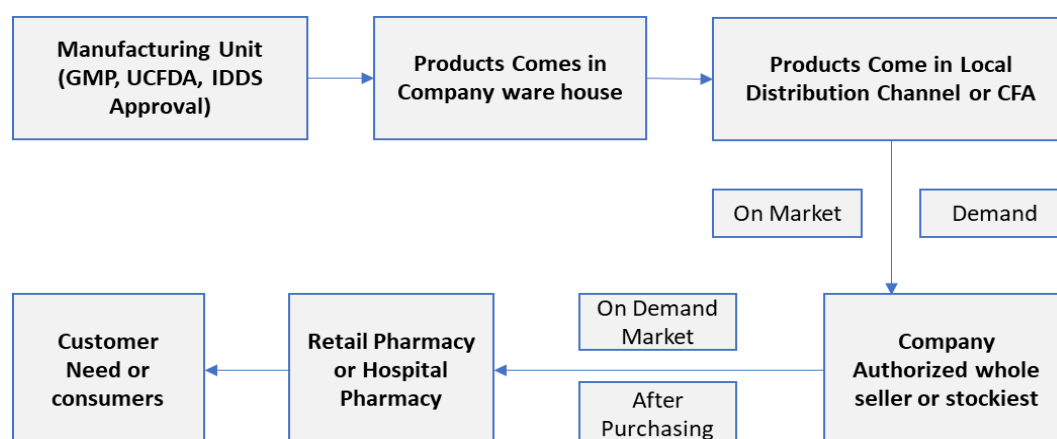


Fig. 1. Flowchart of supply of medicine in the market.

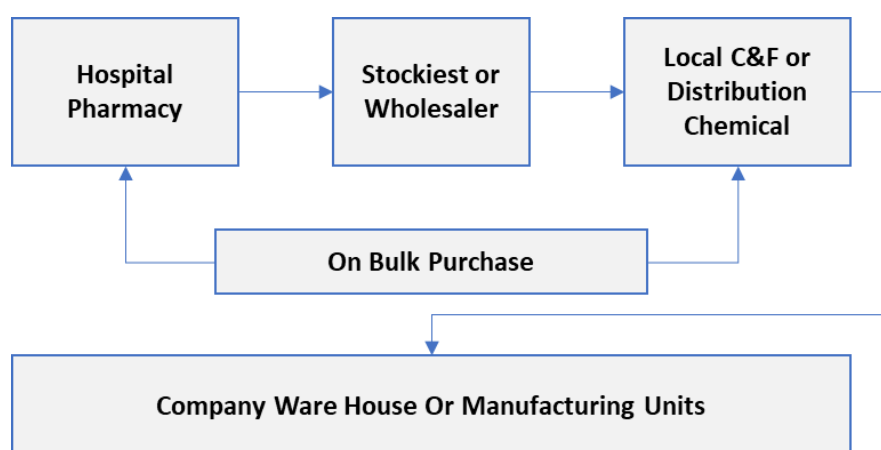


Fig. 2. Flowchart of purchase of medicine supply chain in hospitals.

The success of the medicine management cycle depends on the ability to supply the standard-quality medicines at affordable rates to health facilities at all levels of the healthcare system reliably and consistently.

As shown in Figure 2, The medicines are first produced in the company and then stored in company warehouses. These medicines are ready to be delivered to local distributors on bulk order from warehouses. Local distributors then supply medicines to stockholders or wholesalers in different regions. Wholesalers supply hospitals and medical stores with the medicines. All these suppliers have their margins according to their respective profits.

As we can see in the flow chart and above-mentioned approaches used by the hospital, pharmaceutical supply chains differ from other chains because they usually have large and extended global pipelines that require high product availability with high supply and demand uncertainty.

CONCLUSIONS

In order to sustain and expand successful interventions, medicine supply chains need

to be made more robust and flexible through better management and increased investment of resources to achieve supply chain optimization.

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