


Chapter 10

Contemporary Perspective on Supply Chain Management Regarding Drug Sourcing Shortages

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ABSTRACT

Safeguarding the supply of drugs and satisfying the needs of patients is a strategic priority of any health-care system especially in these pandemic times. The pharmaceutical supply chain is subject to many pressures including non-availability and shortage of requisite drugs. A drug shortage is a deficiency in the supply of medicines or products that affects the ability of a patient to get the required treatment in due time. The roots of drug shortages are multifaceted, varied, and the issue can be due to supply or demand. However, the situation affects almost every stakeholder in the healthcare system, which is why collaboration is a must to deal with drug shortages. Hence, adopting an exploratory and single-case approach of the largest public hospital in the context of Namibia, the objective of this chapter is to provide a contemporary perspective of supply chain management re drug sourcing shortages, analyze the causes of drug shortages, recommend measures to minimize the crisis, and suggest strategies for enhanced efficiency in drug supply.

INTRODUCTION

Safeguarding the supply of drugs and satisfying the needs of patients when it comes to quantity, quality, cost, and accessibility is a strategic priority of any health care system priorities (Abdollahiasl, Nikfar, Kebriaeezadeh, Dinarvand, Abdollahi, Jaberidoost and Cheraghali, 2014). Pharmaceuticals represent a large portion of the costs in the healthcare industry due to the significant costs of these products and their storage and control requirements (Kelle, Woosley, and Schneider, 2012). The pharmaceutical sup-

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ply chain is subject to many threats leading to deteriorating treasured resources and the disruption of available drugs resulting in the growing problem of shortages. Drug shortage is a condition in which the supply of all clinically alternative versions of controlled drugs is insufficient to meet the current or estimated demand at the user levels, which are patients (Gu, Wertheimer, Brown and Shaya, 2011). In addition, in 2010, 211 newly reported drug shortages tripled the amount in 2006, with almost 75% being sterile injectable (Gu, et al., 2011). In many healthcare practice settings, the shortage is prevalent and affects nearly all the classes, with the most critical ones are surgical and being affected the most (Ventola, 2011). Moreover, the quality use of medicines is a key factor in achieving positive health outcomes. Evidence indicates significant scope for improvement in the use of drugs for hospitalized patients (Dooley, Allen, Doecke, Galbraith, Taylor, Bright, and Carey, 2004). However, drug shortages and supply inefficiencies create obstacles for hospital management and also patients being serviced well. Further, these pandemic times shed light on a number of systemic and organizational challenges linked to supply chain management, including sustainability, supply chain skills and risk management, thus putting much of the taken-for-granted knowledge on supply chain management to the test (Baporikar, 2021; Bals, Schulze, Kelly, and Stek, 2019). Aspects such as sourcing, resilience, public procurement, and sustainable development have emerged as consequential topics for supply chain management (Pettit, Croxton, and Fiksel, 2019), which are critical and relevant to drug sourcing.

A drug shortage is a deficiency in the supply of medicines or products that affect the ability of a patient to get the required treatment in due time (Pauwels, Huys, Casteels and Simeons, 2015). The roots of drug shortages are multifaceted and varied. The problem can either be due to the supply or demand (Bateman, 2013). However, the situation affects almost every stakeholder in the health care system, so collaboration is required to handle or reduce shortages. It is also possible to affect the amount of work, important decisions and financial impact if not be anticipated on time (Pauwels, et al.2015). Burns (2002) examined the healthcare value chain. In addition, Pitta and Laric (2004), provide a model of the healthcare value and supply chains which helps to change the focus from individual transactions to a more comprehensive view of the entire system. This supply chain is not linear or sequential in nature but closely follows the flow of information through the system. Public expectation of quality healthcare and the burgeoning costs of more sophisticated and expensive medical interventions has been a great cause of worry and deliberation the world over (Böhme, Williams, Childerhouse, Deakins and Towill, 2013). Governments worldwide attempt regulation of such services, often through a philosophy of New Public Management which Hood (1995) defines as the lessening of differences between the public and private sectors by shifting the emphasis away from process accountability and towards outcomes.

Namibia, a country situated in the southern part of Africa, comprises a population estimated to be 2.304 million inhabitants from the 14 regions (Namibia Statistical Agency, 2011). Under the Ministry of health and social services (MoHSS), the government ensures the effective and efficient monitoring of the country's health system. The efficient functioning of Namibia's public pharmaceutical management system, one of the central support systems, is critical to the success of the health sector (Ministry of Health and Social Services, 2014). The country uses a classic central medical store (CMS) system. The administration in the CMS and regional stores is not linked; the only relationship between one customer and client. The CMS distributes medicines and supplies to the regional medical store, all hospitals and clinics, both regional and local, are responsible for distributing to other health facilities within their geographic control (World Health Organization, 2013). Hence, there is an issue of supply chain management when it comes to drugs delivery, even as a relief measure in Namibia (Baporikar and Shangheta, 2018). Supply chains have been defined as vertically networked companies extending from

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