

Management of drug shortages induced by COVID-19 pandemic.

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Abstract

COVID-19 pandemic has led to a devastating situation globally. To defeat COVID-19 pandemic, continuous supply of medicine is required to safeguard the health of society. However, in Pakistan it seems that drug shortage has soared in COVID-19 pandemic as importation of raw material is currently suspended. This article offers insight on potential drivers for drug shortages in the bay of COVID-19 outbreak in Pakistan and suggests recommendations for its efficient management. Apparently, pre-existing causes of drug shortages have been exacerbated due to the emergence of a COVID-19 pandemic. Among these, sub-optimal performance of regulatory authority is a significant contributor as no management strategy has been implemented to combat shortages. In fact, no official definition as well as no online reporting system has been dedicated to communicate drug shortages in the country due to which it is hard to quantify the current level of shortages in the COVID-19 pandemic. Consequently, there is a need to establish a proper surveillance system to squelch the unforeseeable consequences of drug shortages.

Keywords: COVID-19, Pandemic, Drug shortages, Pharmacist, Management.

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Introduction

COVID-19 outbreak initially originated from Wuhan last year, which afterwards quickly disseminated to other countries and consequently declared as a pandemic on 11 March 2020. The sudden outbreak of Corona virus act as a shock for health care system of many countries, particularly in Pakistan, where the health care system is continuously challenged by insufficient supply of essential drugs in pharmacies. Previous studies at the national level have highlighted that merely 15% demand for essential drugs in the public organization and 31% demand in the private organization has been fulfilled. Therefore, a drug shortage is deemed as one of the potential barrier for the improved health care. The situation has turned even direr after the emergence of COVID-19 outbreak as blocking the importation of raw material and prohibiting the local drug production. In January 2020, it has been reported that over 60 essential medicines have vanished from the pharmaceutical market including vaccines, controlled drugs (narcotics) and anticancer drugs. Countries have prohibited trade as a protective measure against the outbreak, and this restriction has potentially generated global drug shortages. More importantly, before COVID-19 pandemic, anticancer drugs were already in short supply in Pakistan due to non-existence of primary local manufacturing units and this scarcity of drugs has risen in lock down which is eventually jeopardizing the patient health. Thus, COVID-19 pandemic is responsible for the death of people who are not infected by COVID 19 disease through deprivation from the attainment of the required treatment. A still prominent shortage is present in Pakistan, which has posed clinical complications for patients and health care providers. To overcome shortage, prescribing alternative drugs may induce adverse reaction in patients. This commentary aims to examine the impact of drug shortages in COVID-19 pandemic on health care system as understanding these reasons would be helpful

for drug shortages management in a broader sense. Moreover, recommendations mentioned in this study would aid policy makers in the development of strategies to prevent further supply crisis in Pakistan.

Description

Pre-existing causes of drug shortages in Pakistan

Drug shortages are a complex phenomenon and its causes vary from one country to the other. Extensive research has been conducted to examine this issue all around the world. However, European Medicines Agency (EMA) in 2012 classified these problems into three main groups which are

- Economic and regulatory issues,
- Business reasons, and
- Manufacturing and supply chain problems.

Seemingly, all these aforementioned problems have been escalated due to the emergence of COVID-19 outbreak. Countries have closed their boundaries and businesses are forced to shut down resulting in global supply chain disruption. Undoubtedly, this shortage may last for extended duration as there is still no information for reopening of global trades. In this difficult time, the drug shortage could have detrimental impact on patient health. Like other LIMCs, Pakistan holds fragile health care system which has been further distorted in pandemic as 2,200 physicians and Para medical staffs are already infected with COVID-19 disease reportedly. To manage under staffing, young physicians are currently working in Intensive Care Units of hospitals. These less trained physicians may make more medication errors because prescribing alternative medicine to overcome short supply requires training and experience. Moreover, the prescribed alternative could be less efficacious and may be perilous for patients. Hence, the

drug shortage in a COVID-19 pandemic could potentially generate further unprecedented health problems.

Conclusion

To conclude, drug shortage is emerging threat to manage COVID-19 pandemic in Pakistan and other low middle income countries which should not be further overlooked. Basically, regulatory gaps and insufficient resources are a major contributor for supply crisis within the state. Holistic solutions to this include policy development for early detection of shorted drugs, surveillance system establishment to detect anticipated shortages, and pharmacist and policy makers participating proactively to mitigate the impact of any upcoming shortages. More importantly, teamwork is crucial to

defeat the COVID-19 pandemic and health care workers should collaborate with each other to actively confront the challenges of COVID 19 pandemic.

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