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Impact of Three Outbreaks on Mpox Prevention Program in Iraq: Lessons and Recommendations

Ahmed A. Mosa[1]* and Nawfal R. Hussein[2]

[1]College of Medicine, University of Zakho, Kurdistan Region, Iraq.
[2]Department of Biomedical Sciences, College of Medicine, University of Zakho, Kurdistan Region, Iraq.

Abstract

The COVID-19 pandemic has strained an already fragile Iraqi healthcare system. Globally, the pandemic affected the emergence and re-emergence of infectious illnesses. Despite the COVID-19 pandemic, the Iraqi healthcare system was further exhausted when the country reported cases of Crimean Congo Hemorrhagic Fever and Cholera. Mpox is a zoonotic viral disease caused by the MPOX virus. In Iraq, as all resources are directed towards these three outbreaks, Mpox becomes extremely negligible. Failure to prevent the spread of this disease will have a catastrophic effect on the Iraqi healthcare system. Efforts should be made to increase population awareness regarding transmission routes and symptoms of Mpox. Training programs should be provided to healthcare workers to distinguish Mpox from other rash illnesses concisely. Effective surveillance programs and providing diagnostic tools to detect unknown or suspected cases should be the priority of the health authorities. Lessons must be learned from these three outbreaks.

Keywords: Mpox, COVID-19, Crimean Congo Hemorrhagic Fever, Cholera, Outbreak

***Correspondence:** ehmad.a.mosa@gmail.com

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INTRODUCTION

The advent of the COVID-19 pandemic has further strained an already fragile Iraqi healthcare system that has endured a long period of wars and sectarian tensions.[1] Globally, COVID-19 has impacted the emergence and re-emergence of infectious illnesses such as Cholera, Crimean Congo Hemorrhagic Fever (CCHF), and Mpox as they were neglected during the COVID-19 pandemic.[2,3]

Mpox is a zoonotic viral disease caused by the Mpox virus that was first identified in monkey colonies in 1958. Later, in 1970 the first case of human Mpox was diagnosed in the Democratic Republic of the Congo.[4] The Mpox virus has two specific genetic clades, the Central African clade, and the Western African clade, which causes a milder disease.[5] Humans acquire the Mpox virus from infected animals such as rodents. However, person-to-person transmission can also occur through close or intimate contact with an infected person primarily, through contact with bodily fluids, lesions of the mouth and throat, and contaminated objects.[6]

Most of the clinical features of Mpox are similar to those of chickenpox, with patients initially experiencing headache, fatigue, and fever and later developing lymphadenopathy and rash. Lymphadenopathy, which is not a manifestation seen in chickenpox, usually affects the groin and neck lymph nodes, whereas the rash begins on the face and subsequently spreads to other regions of the body.[7] As Mpox cases were rapidly increasing, on July 23, 2022, World Health Organization (WHO) declared the Mpox outbreak an international public health emergency.[8] This article aims to illustrate the burden of COVID-19, Cholera, and CCHF in the diagnosis, prevention program, and effective future preparedness for Mpox in Iraq.

Impact of three outbreaks on Iraqi healthcare response to Mpox disease

Since February 2020, when the first case of COVID-19 was confirmed in Iraq, the country has gone through four devastating waves of COVID-19. These four waves have put a tremendous strain on the fatigued Iraqi healthcare system.[9,10] Despite the fact that COVID-19 has exhausted the healthcare system, the system was further exhausted when hidden outbreaks came into existence, and the country has reported 295 laboratory-confirmed cases of CCHF with a 17.9% fatality rate and 865 laboratory-confirmed cases of Cholera.[11]

As resources are focused on containing these three epidemics, which have depleted the healthcare system, Mpox has become extremely negligible. Nevertheless, during the current global Mpox outbreak, Iraq has witnessed an upsurge in rash diseases that are diagnosed clinically with no laboratory-confirmed cases of chickenpox.[12] This might be linked to a lack of adequate preventative monitoring programs, scarcity of the health infrastructure, and inadequate physician comprehension to concisely distinguish Mpox from other rash disorders, as well as patients with Mpox are stigmatized to seek medical care.[13] Because the early clinical presentation of Mpox is similar to that of chickenpox, misdiagnosis and improper illness management may occur due to insufficient laboratory diagnostic techniques for early detection and verification of Mpox cases in Iraq. Furthermore, co-infection with COVID-19 will make illness management challenging, ultimately leading to higher mortality.[14]

Failure to prevent the spread of this infectious disease will have a catastrophic impact on the Iraqi healthcare system, leading to issues like reduced access to care, shortage of intensive care units, lack of antivirals and ineffective clinical management. It will also require additional financial resources to isolate infected people and quarantine suspected cases, which will have a significant negative economic impact on the nation.[15]

Lessons learned from these three outbreaks

Despite the negative effects brought on by these outbreaks, notably the COVID-19 pandemic, these outbreaks have assisted in raising awareness of fundamental infection control measures. Maintaining good hygiene, physical distance, quarantine, early containment measures, travel restrictions, and vaccination against infectious diseases have all been crucial in the fight against the Mpox disease, as the transmission of the Mpox virus occurs during close contact with the infected person.[16,17]

To lessen the likelihood of population disinformation trends, essential evidence-based

information should be made available to the public via television news outlets, radio broadcasts, social media platforms, health organizations, and campaigns.[18] Misinformation about the illness might increase people's dread and anxiety, which would ultimately lead to mistrust of the healthcare system.[19]

Future Recommendations

Although no cases of Mpox have been documented in Iraq, the disease remains a serious public health threat. Efforts should be directed towards increasing population awareness regarding modes of transmission and disease symptoms, which play an essential role in prevention. Early and accurate diagnosis of the Mpox is crucial to avoid rapid transmission of the disease at the community level.[20] In order to diagnose, manage, and treat patients effectively, healthcare professionals need to be equipped with the necessary knowledge to distinguish between these infectious illnesses clearly. Additionally, medical personnel should wear personal protective equipment to reduce their risk of contracting the infection and later on becoming the source of spreading the infection.[21]

Health authorities should support appropriate surveillance programs and provide hospital and medical laboratories with adequate facilities, financial resources, and advanced diagnostic tools to aid in screening and early detection of unknown or suspected cases, which will significantly benefit disease management and prevention.[14] Health organizations should not underestimate epidemics in developing countries because international travel and migration have accelerated the globalization of infectious diseases. Therefore, international collaboration and strengthening of cross-border monitoring will help to limit the globalization effect of infectious illnesses.[22,23]

CONCLUSION

In the event of another infectious disease outbreak, the already weakened healthcare system will be overburdened. COVID-19, CCHF, Mpox and other infectious diseases will continue to exist. As all efforts are directed to limit the spread of these current outbreaks, this will have a detrimental effect on the spread of Mpox and exacerbate the situation. Lessons from past outbreaks must be learned. Early containment measures, public awareness, and global research efforts to produce viable vaccines and therapeutic interventions may lighten the burden on the healthcare systems.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

AUTHORS' CONTRIBUTION

NRH conceptualized and designed the study. AAM wrote the manuscript, reviewed and edited the first draft. NRH reviewed and edited the second draft. Both authors read and approved the final manuscript for publication.

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DATA AVAILABILITY

All datasets generated or analyzed during this study are included in the manuscript.

ETHICS STATEMENT

Not applicable.

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