THE NEW ARMENIAN MEDICAL JOURNAL
Volume19 (2025), Issue 2 p.4-17

DOI: https://doi.org/10.56936/18290825-2.v19.2025-4

INTERSECTING PANDEMICS: ANALYZING THE RELATIONSHIP BETWEEN MPOX AND COVID-19

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Received 28.12.2024; Accepted for printing 28.03.2025

Abstract

The re-emergence of the mpox (formerly known as monkey pox) virus following the COVID-19 pandemic poses significant challenges to global public health. This review examines the epidemiological trends of mpox, highlighting a marked increase in post-COVID-19 cases. Key issues, including stigma, misinformation, and public awareness, hinder effective control measures, as affected populations may be reluctant to seek testing and treatment. Access to healthcare remains a critical concern, particularly in resource-limited settings, where inadequate infrastructure complicates outbreak response and surveillance efforts.

Advancements in diagnostic technologies and vaccination campaigns, initially developed in response to COVID-19, have proven instrumental in addressing the mpox outbreak. Polymerase chain reaction remains the gold standard for accurate diagnosis, while innovations in point-of-care testing and genomic sequencing offer opportunities for enhanced surveillance and response. Vaccination strategies, including the use of JYNNEOS and ACAM2000 vaccines, have shown promise, yet challenges persist, including public hesitancy, misinformation, and logistical barriers to equitable distribution, particularly in resource-limited settings.

Vaccination plays a pivotal role in managing mpox outbreaks; however, challenges related to vaccine distribution and public hesitancy must be addressed to ensure effective coverage. The review also explores advancements in diagnostic methods developed after COVID-19, emphasizing their importance for timely case identification. It acknowledges persistent barriers to accurate reporting and highlights the necessity of ongoing research to improve mpox preparedness and response, as well as to enhance health infrastructure and international collaboration strategies. Recommendations include increasing public awareness, engaging communities in vaccination efforts, and fostering global partnerships to combat the spread of mpox and other infectious diseases.

Keywords: *mpox, COVID-19, infectious diseases, epidemiology, vaccination, diagnostics, global health, surveillance systems, public health response, stigma, misinformation, outbreak management, pandemic preparedness, healthcare infrastructure.*

Cite This Article as:

Mohammad I., Khan M.S., Ansari R., Bari N., Mohammad Anwar (2025). Intersecting Pandemics: Analyzing the Relationship between Mpox and COVID-19; The New Armenian Medical Journal, vol.19 (2), 4-17; https://doi.org/10.56936/18290825-2.v19.2025-4

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