



Early diagnosis and prevention of MPOX in children and adolescents during dental care

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Dear Editor-In-Chief,

On August 14, 2024, the World Health Organization (WHO) declared the monkeypox outbreak a public health emergency of international concern (World Health Organization 2024). The severity of this global health threat highlights the critical importance of implementing strict infection control practices, including within the field of dentistry.

Monkeypox (MPOX) is a re-emergent zoonotic infection caused by the monkeypox virus, which transmits the disease by direct contact with infected lesions, contaminated materials, and droplet infection from respiratory and blood-streams. Its clinical manifestation often begins as a rash that progresses from maculopapular lesions to vesicles, pustules, and finally scabs that may involve the skin and soft tissues, including the oral cavity (Monzón et al. 2024).

Since its beginning in 2022, this global outbreak has taken hold in numerous African countries and, more recently, beyond their borders. It is disturbing that children continue to represent the most affected age group. Two-thirds of cases and 82% of deaths due to MPOX occurred among children under 15 years of age in the Democratic Republic of the Congo (McQuiston et al. 2024). Considering the potential for a similar situation to arise in other countries, the urgent need to address this demographic highlights the significance of pediatricians and medical professionals to receive training in the recognition and management of MPOX, a crucial place where dentists may also play their part.

Studies indicate that oral mucosal lesions are affected in almost 70% of cases, and have been reported to occur even

before rashes appear on the skin (Gandhi et al. 2023). Consequently, this places the dentist in a good position to make worthy contributions to early identification by identifying such signs during routine clinical examinations. Furthermore, owing to the possibility of spreading through contaminated surfaces, the dental setting is highly susceptible to the spread of MPOX infection (Zemouri et al. 2022). Preventive strategies are essential for implementation, especially given the close contact between patients and dentists during procedures, which may lead to blood and aerosolized droplet dispersal.

In light of the recent pandemic and the valuable lessons learned from COVID-19, it is imperative to take swift and decisive action to manage and contain infectious disease outbreaks. Leveraging recent technological advancements, such as artificial intelligence and the metaverse (Veseli 2024), can empower the dental community to utilize innovative tools that enhance their readiness and response to emerging infectious diseases, such as MPOX. Recognition of the signs and symptoms of this disease and the application of rigorous preventive measures can lead dentists to play an important role in minimizing the spread of MPOX, especially in at-risk populations such as children.

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