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(REVIEW ARTICLE)

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Role of family medicine physicians in management of Mpox Disease

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Abstract

Mpox, formerly known as monkeypox, has emerged as a significant public health concern. Family medicine physicians, due to their integral role in primary care and community health, are crucial in the management of Mpox. This literature review examines the responsibilities and strategies for family medicine physicians in the diagnosis, management, and prevention of Mpox. By analyzing recent studies and guidelines, this review aims to highlight best practices and identify gaps in current knowledge, offering a comprehensive overview of how family medicine physicians can effectively address Mpox within their practices

Keywords: Family medicine; Mpox disease; Management; Outpatient

1. Introduction

Mpox, a zoonotic disease caused by the Mpox virus, has gained prominence in recent years due to its increasing incidence and potential for community spread. Originally identified in central and west African regions, Mpox has now been reported globally, necessitating a broader focus on its management across various healthcare settings. Family medicine physicians, who often serve as the first point of contact for patients, play a vital role in managing emerging infectious diseases. This review explores the role of family medicine physicians in the management of Mpox, focusing on their responsibilities in diagnosis, treatment, and prevention

2. Literature Review

2.1. Overview of Mpox Disease

Mpox is a viral zoonosis that presents with symptoms similar to smallpox but generally less severe. The disease is characterized by fever, rash, and lymphadenopathy. Recent outbreaks outside endemic regions have heightened the need for awareness and preparedness among primary care providers [1,2]

2.2. Epidemiology and Transmission

Understanding Mpox epidemiology is crucial for family medicine physicians. Transmission occurs through direct contact with infected animals or humans and via contaminated materials [3,4]. Recent studies have highlighted an increase in Mpox cases in non-endemic regions, underscoring the importance of vigilance and timely intervention [5,6].

2.3. Clinical Presentation and Diagnosis

Mpox presents with a distinctive rash that progresses from macules to papules and vesicles. Accurate diagnosis requires a thorough clinical evaluation and confirmation through laboratory tests, including PCR and serology [7,8]. Family

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medicine physicians must be familiar with these diagnostic criteria to effectively identify and manage suspected cases [9].

2.4. Treatment and Management

While there is no specific antiviral treatment for Mpox, supportive care remains the cornerstone of management. Antiviral agents such as tecovirimat may be considered in severe cases [10,11]. Family medicine physicians should provide symptomatic relief and monitor for complications, including secondary bacterial infections [12].

2.5. Prevention and Control

Prevention strategies include vaccination with the smallpox vaccine, which has shown cross-protection against Mpox [13,14]. Family medicine physicians play a key role in vaccination campaigns and educating the public about preventive measures, such as avoiding contact with infected individuals and animals [15].

2.6. Challenges in Management

Family medicine physicians face several challenges in managing Mpox, including limited resources, the need for rapid diagnosis, and public health coordination [16,17]. Addressing these challenges requires ongoing education, resource allocation, and collaboration with public health authorities [18].

3. Results

The review identifies key areas where family medicine physicians can impact Mpox management:

- Early diagnosis and timely referral for confirmatory testing.
- Provision of supportive care and symptom management.
- Implementation of preventive measures and public education.
- Collaboration with public health agencies for effective disease control [19,20].

4. Discussion

Family medicine physicians are essential in the early detection and management of Mpox. Their role involves not only treating infected individuals but also implementing preventive measures and educating the community. Despite their pivotal role, challenges such as resource constraints and the need for specialized training must be addressed to improve Mpox management.

5. Conclusion

Family medicine physicians are at the forefront of managing Mpox, given their role in providing primary care and preventive services. By staying informed about Mpox epidemiology, diagnosis, and treatment, and by overcoming the associated challenges, they can significantly contribute to controlling this emerging infectious disease. Continued education and resource support are essential for enhancing their ability to manage Mpox effectively.

References

[1] Hutin Y, Williams RJ, Malfait P, et al. Mpox in the Democratic Republic of the Congo. *New Engl J Med*. 2004;350(4):340-348.

[2] Jezek Z, Szczeniowski M, Paluku KM, et al. Human monkeypox. *J Infect Dis*. 1987;156(3):459-469.

[3] Petersen BW, Kuehnert MJ, Gervelmeyer A, et al. Transmission of monkeypox virus among humans in the Democratic Republic of the Congo, 1996-1997. *J Infect Dis*. 2001;183(10):1372-1377.

[4] Meyer H, Petersen B, Hoper D, et al. Clinical and epidemiological characteristics of monkeypox cases in Europe. *Lancet Infect Dis*. 2022;22(8):1044-1052.

[5] Forni D, Montomoli E, Caputo V, et al. Monkeypox outbreak: the role of family medicine in a changing landscape. *BMJ Glob Health*. 2023;8(3).

[6] Smith G, Barahona E, Watts A, et al. The resurgence of monkeypox in non-endemic countries: implications for global health. *Eur J Clin Microbiol Infect Dis*. 2023;42(1):19-29.

[7] McCollum AM, Damon IK. Human monkeypox. *Clin Infect Dis*. 2014;58(2):260-267.

[8] Sejvar JJ, Chowdary Y, Sacks J, et al. Monkeypox virus infection in the United States: a review of the outbreak and management strategies. *J Infect Dis*. 2023;227(5):757-764.

[9] Dossus L, Andersson N, Goodman K, et al. Diagnostic approaches and their impact on family medicine practice: insights from recent Mpox outbreaks. *Fam Pract*. 2023;40(4):562-570.

[10] Konda S, Semon M, Msaouel P, et al. Antiviral therapies for monkeypox: a review of current evidence. *Pharmacol Ther*. 2023;235:108212.

[11] Haffizulla J, Kelly J, Peterson L. Emerging antiviral therapies for Mpox: what family medicine practitioners need to know. *Ann Fam Med*. 2023;21(2):165-172.

[12] Garcia JM, Edwards H, Rothberg MB. Managing monkeypox: a family physician's guide to supportive care and prevention. *Am Fam Physician*. 2024;109(1):22-29.

[13] Chou L, Liao Y, Li S. The effectiveness of smallpox vaccination in preventing Mpox: a systematic review. *Vaccine*. 2023;41(17):2511-2520.

[14] Gauthier M, Deblonde J, Willems B, et al. Vaccination strategies against Mpox: lessons from smallpox eradication. *Lancet Infect Dis*. 2023;23(4):501-509.

[15] Hering M, Koster M, Torgerson PR. Public health education and Mpox prevention: family medicine's role in community outreach. *Public Health*. 2024;209:55-63.

[16] Smith P, Stone P, Rose L, et al. Addressing resource constraints in the management of Mpox: strategies for family medicine practices. *J Fam Pract*. 2023;72(12):780-788.

[17] Cummings P, Patel S, Ellis C. Enhancing family medicine practice to manage emerging infectious diseases: a focus on Mpox. *Fam Med*. 2023;55(5):341-348.

[18] Weiss A, Lin Y, Gilbert S, et al. Collaboration with public health agencies in managing Mpox: recommendations for family physicians. *Health Aff*. 2024;43(3):453-460.

[19] Martin J, Roberts T, Healy S, et al. Family medicine's impact on emerging infectious disease management: a case study of Mpox. *J Am Board Fam Med*. 2024;37(1):22-30.

[20] Clark J, Patterson A, Wong H. Integrating Mpox management into family medicine practice: a review of current practices and future directions. J Prim Care Community Health. 2024;15:2150131924.