# MARBURG VIRUS DISEASE: ANOTHER THREAT TO PUBLIC HEALTH IN THE ANTHROPOCENE

**Yinmi Gabriel Oladeji[1,2]**

**1. Obafemi Awolowo University, Ile-Ife 2. Planetary Health Alliance, Washington DC**

## INTRODUCTION

Marburg virus disease (MVD) comes with a highly fatal haemorrhage as one of its symptoms. Recently, more outbreaks of MVD were recorded in Africa. The World Health Organization reported that MVD has a case fatality ratio (CFR) reaching 88% and its is capable of causing damage to multiple organs WHO, 2017). Symptoms of MVD are quite similar to that of Ebola Virus Disease (EVD). MVD is caused by a Marburg virus (MARV), one of the viruses in the family filoviridae (Martines *et al.,* 2015; Rougeron *et al.,* 2015). This review seeks to explore literatures addressing the environmental viability of MARV and policies addressing anthropogenic activities constituting to its outbreak

## METHOD

- Database and source search
- Article retrieval and Review
- Writing and Information synthesis

ygoladeji@oauife.edu.ng

+2348102489799

## RESULTS

MARV is a zoonotic virus with its natural host being the Egyptian fruit bat, *Rousettus aegyptiacus*. Since 1976 when its first incidence was recorded in Germany among scientists who were working on African green Monkey imported from Africa, there have been progress in understanding the pathogenesis of MARV in human and some animal models. MARV being a BSL – 4 virus requires maximum safety precautions when dealing with it. However, there is brevity of work considering the planetary perspective of MARV.

## CONCLUSION

The Anthropocene is an era where human cross many boundaries necessary for maintenance of human health and the natural systems. There is therefore a need to consider the planetary health perspective to the threat constituted by MARV to public health. Approaches necessary to minimize human encroachment of the natural habitats of the vertebrate host of MARV is needed at local and global level. In addition, more work is needed to establish the viability and transmissibility of Marburg in various environmental sources

## DISCUSSION

The high transmission rate and high CFR of MARV calls for effective surveillance across all risk regions. Studying how MARV behaves in diverse animals and environments is also necessary for the establishment of the role of animals and environments in its transmission. This will help to curb anthroponotic transmission, especially in the Anthropocene. When efforts to check the viability of the virus in environmental sources, e.g. wastewaters, or even plants and arthropods go on simultaneously with that of vaccine production for both human, threats to human and animal can be tamed or eradicated.

## REFERENCES

1.Martines, R. B., Ng, D. L., Greer, P. W., Rollin, P. E., & Zaki, S. R. (2015). Tissue and cellular tropism, pathology and pathogenesis of Ebola and Marburg viruses. The Journal of Pathology, 235(2), 153–174.

2.Rougeron, V., Feldmann, H., Grard, G., Becker, S., & Leroy, E. M. (2015). Ebola and Marburg haemorrhagic fever. Journal of Clinical Virology, 64, 111–119.

3.World Health Organization. (2021). Marburg virus disease. https://www.who.int/news-room/fact-sheets/detail/marburg-virus-disease