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Editorial

Emerging arboviral infections: the importance of epidemiology

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Introduction

Epidemiology is the study of patterns, causes and effects of health and disease conditions, within defined human and/or animal populations.[1,2] Epidemiology shapes public health policy decisions and includes evidence-based practice by identifying risk factors for disease and by pursuing targets for preventive health care.[1-4]. Epidemiology is also the study of human populations and addresses the following functions, namely:

a. Discovering the agent, host and environmental factors;

b. Determining the cause of illness, disability and death;

c. Identifying risk-health determinants and

d. Evaluating current health programmes and services.[5,6]

Epidemiologic practices and viral zoonoses are geographically interlinked and selected examples within the African context are listed, namely:

i. Crimean-Congo Haemorrhagic Fever;

ii. Dengue Virus;

iii. Ebola disease;

iv. Foot- and- mouth disease;;

v. Lassa Fever;

vi. Marburg disease;

vii. Measles;

viii. Rabies;

ix. Rift Valley Fever;

x. Sindbis virus;

xi. Middelburg virus;

xii. And rotaviral gastroenteritis.[7-12]

Animals play a significant role within public health practices and viral zoonoses continue to threaten public health.[6-12]

Discussion

Zika virus is an emerging viral disease in African, Asian, and recently South American countries.[13,14] It is related to Dengue, Yellow Fever, West Nile and Japanese Encephalitis viruses, all members of the family Flaviviridae.[13] Human to human transmission has been widely contested and sexual transmission and the result of Zika virus DNA in human amniotic fluid indicates another mode of foetal infection.[15] The Zika virus is spread through mosquito bites and Zika virus infection in pregnant women with subsequent birth defects is being investigated in Brazil.[16]

Conclusion

No vaccine exists to prevent Zika virus disease and the only way to prevent Zika virus infection is through avoiding mosquito bites, which occur mostly during the daytime.

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None.

Conflicts of Interest

None.

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