

## DENGUE FEVER: STRATEGIES FOR RESPONDING TO THE GLOBAL HEALTH EMERGENCY

### DENGUE: ESTRATÉGIAS DE ENFRENTAMENTO DIANTE DA ATUAL EMERGÊNCIA SANITÁRIA NO SUL GLOBAL

Wendt, G. W.<sup>1</sup>

<sup>1</sup> Editor, Revista *Acta Elit Salutis* (AES), Universidade Estadual do Oeste do Paraná, Francisco Beltrão, Brasil.

#### Artigos desta edição / Articles

Advancing Dengue Fever Preparedness in Africa: Challenges, Resilience, and Contributions to Global Health [Avanços para Vigilância da Dengue na África: Desafios, Resiliência e Contribuições para a Saúde Global]

Perfil epidemiológico da dengue no Estado do Paraná entre os anos de 2018 e 2024 [Epidemiological profile of Dengue fever between 2018 and 2024 in the State of Paraná, Brazil]

Dengue e Colecistite Alitiásica [Acute Acalculous Cholecystitis and Dengue]

Detection of Dengue virus infection among febrile patients presumptively diagnosed with malaria in Ogun State, Nigeria [Detecção de infecção pelo vírus da dengue entre pacientes febris presumivelmente diagnosticados com malária no Estado de Ogun, Nigéria]

A relação do uso de agrotóxicos com as malformações congênicas no Brasil [The relationships between the use of pesticides with congenital malformations in Brazil]

## Dengue Fever: Strategies for responding to the global health emergency

Dengue fever is a viral disease which results from the infection by the dengue virus<sup>1</sup>. Dengue is endemic in many tropical and subtropical regions of the world and poses a challenge to health services. In the last epidemiological year, comprising 2023 and 2024, dengue outbreaks were extremely severe, particularly in the Global South<sup>2,3</sup>.

Consequently, the editorial board of the *Acta Elis Salutis* (AES) journal invited scholars around to contribute to a thematic edition. Thus, under the name of "Dengue Fever: Strategies for responding to the current health emergency in the Global South", the goal of AES was to gather theoretical, empirical, and qualitative research on a myriad of aspects. These included the development and implementation of sustainable prevention and control programs to reverse the current trend of increasing dengue fever cases, particularly in the Global South (a); outbreak prevalence and response, risk factors, and vector management (b); vaccination campaigns, vaccine development, vaccine hesitancy, and allied immunization strategies (c); and clinical management of dengue fever, including innovative approaches and supportive treatment (d).

### Contributions received

This edition of *Acta Elit Salutis* (AES) received several contributions in

response to our call for papers. Precisely, several articles fulfilled the scope announced by the editorial board and underwent peer-reviewing. Among them, four were accepted for publication, being immediately published after the competition of all editorial stages<sup>4-7</sup>.

The first study is the result of work involving scientists from many institutions and countries, including Nigeria, Sudan, Egypt, Cameroon, and the United States<sup>4</sup>. The paper "Advancing Dengue Fever Preparedness in Africa: Challenges, Resilience, and Contributions to Global Health" offers an in-depth analysis of tentative strategies to strengthen not only Dengue preparedness, but also capacity building efforts. Authors cover the role of scientific research and requirements for health systems, as well as actions related to surveillance, vector control, and community engagement<sup>4</sup>.

Next, Consentino-Machado *et al.*<sup>5</sup> presented a study on the prevalence of Dengue fever in the State of Paraná, Brazil. Data from 2018 to 2024 included findings of utmost importance for understanding the severity of the latest outbreak in the country. Apart from providing several factors that comprised the epidemiological profile of Dengue fever in the region – including serotypes and patient characteristics, the investigation corroborated the claims and implications noted elsewhere<sup>4</sup>. Consequently, it seems that nations in the Global South have the challenge of bringing communities together to tackle aspects that can worsen epidemics<sup>4,5</sup>.

Subsequently, an experience report about a sudden, atypical evolution of Dengue shows how healthcare personnel and those under medical training must consider patients' symptoms in the light of the epidemiological situation surrounding communities<sup>6</sup>. For example, the article describes how acute acalculous cholecystitis could be linked to viral infections and, in this case, can result from Dengue infection.

Relatedly, Ajayi *et al.*<sup>7</sup> equally stressed the importance of clinical judgment and proper management of symptoms associated with fever. However, the investigation also provided unique insights into health education programmes. The study assessed 120 febrile individuals in the current year and highlighted the need for screening for concurrent or alternative infections. Although diagnostic protocols were proposed and discussed (i.e., serological screening for dengue virus using NS1 antigen and anti-dengue IgG and IgM antibodies for all febrile patients), perhaps one of the findings of major magnitude refers to the percentage of patients that declared no knowledge about Dengue: 100%. This evident lack of awareness builds upon the suggestions proposed by Enitan *et al.*<sup>4</sup> for Africa.

Beyond the challenges of infectious diseases

To complete this edition of *Acta Elit Salutis* (AES), the last study did not

comprise the thematic section. Nonetheless, the investigation received recommendation for urgent publication because it addresses another threat to communities: the ever increasing and indiscriminate use of pesticides. By adopting a retrospective, longitudinal, time-series design, Corrêa *et al.*<sup>8</sup> explored the relationship between pesticide use and the incidence of congenital malformations registered in official live birth records. Analyses were conducted for different Brazilian regions between 2009 and 2016. In summary, the data revealed an increase of 83.55% in pesticide sales and 23.76% in congenital malformations during the same period. The authors concluded that strategies should be designed to protect those most vulnerable to pesticide exposure<sup>8</sup>, including societal awareness regarding unequivocal hazards to biodiversity.

In summary, the current edition provides robust evidence supporting the need for coordinated actions between scholars, communities, and policymakers to address public health issues. The diversity of methodologies, authors' origins, and perspectives raised in each study can certainly enrich not only our scientific knowledge, but also our level of awareness and engagement to deal with current and future challenges.

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